I 19.53/2: PA-81-2

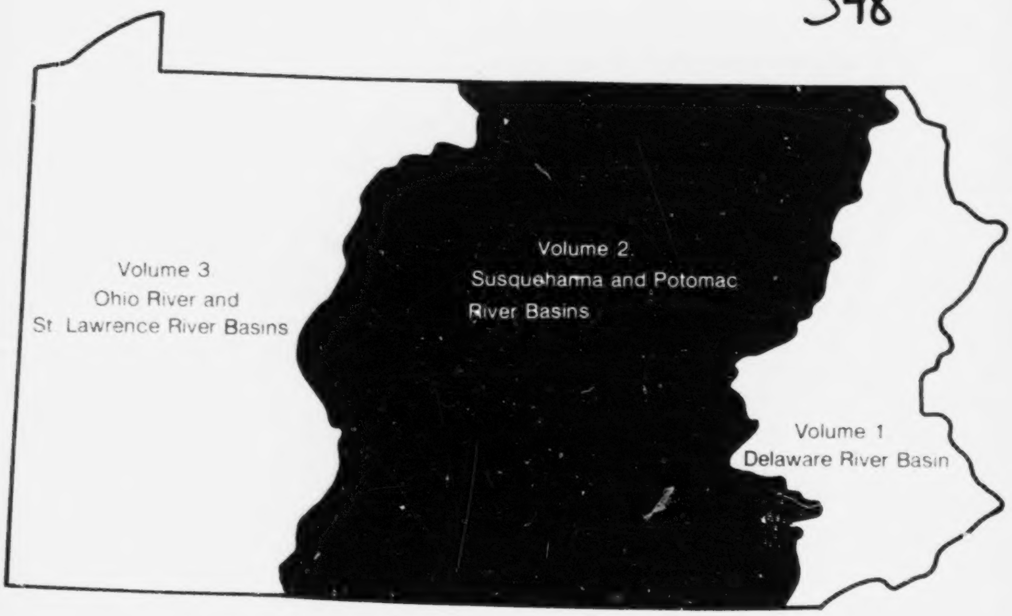
U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

Water Resources Data Pennsylvania
Water Year 1981

ORIGINAL

Volume 2. Susquehanna and Potomac River Basins

COMPLETED
348


Volume 3
Ohio River and
St. Lawrence River Basins
Volume 2
Susquehanna and Potomac
River Basins
Volume 1
Delaware River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-81-2

Prepared in cooperation with the Pennsylvania Department of Environmental Resources, the Philadelphia Water Department and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1981

1980

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1981

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

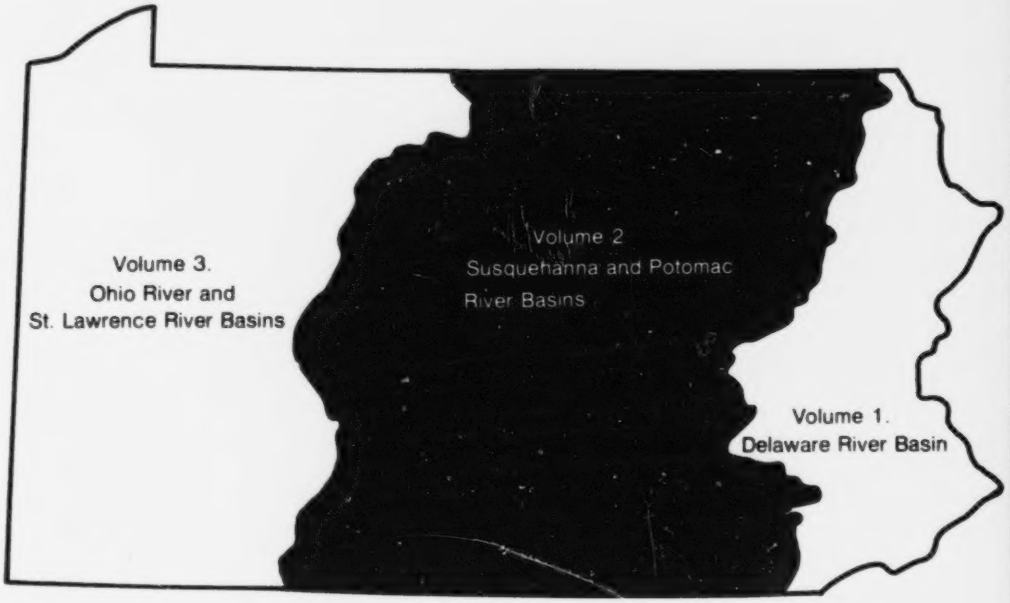
SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

U.S. DEPARTMENT OF THE INTERIOR
March 3 1849

Water Resources Data Pennsylvania Water Year 1981

Volume 2. Susquehanna and Potomac River Basins


Volume 3.
Ohio River and
St. Lawrence River Basins
Volume 2
Susquehanna and Potomac
River Basins
Volume 1.
Delaware River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-81-2

Prepared in cooperation with the Pennsylvania Department of Environmental Resources, the Philadelphia Water Department and with other State, municipal, and Federal agencies

I

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 1107
Harrisburg, Pennsylvania 17108
1982

PREFACE

This report was prepared by personnel of the Pennsylvania District of the Water Resources Division of the U.S. Geological Survey under the supervision of David E. Click, District Chief, and J. E. Biesecker, Regional Hydrologist, Northeastern Region. It was done in cooperation with the State of Pennsylvania and with other agencies.

This report is one of a series issued State by State. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and Robert J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Pennsylvania are in three volumes as follows:

Volume 1. Delaware River Basin
Volume 2. Susquehanna and Potomac River Basins
Volume 3. Ohio River and St. Lawrence River Basins

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-81/028	2.	3. Recipient's Accession No.

4. Title and Subtitle
Water Resources Data for Pennsylvania
Water Year 1981
Volume 2. Susquehanna and Potomac River Basins

5. Report Date
June 1982

6.

7. Author(s)

8. Performing Organization Rept. No.
USGS-WDR-PA-81-2

9. Performing Organization Name and Address
U.S. Geological Survey, Water Resources Division
P.O. Box 1107
Harrisburg, Pa. 17108

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address
U.S. Geological Survey, Water Resources Division
P.O. Box 1107
Harrisburg, Pa. 17108

13. Type of Report & Period Covered
Annual Oct. 1, 1980 to
September 30, 1981

14.

15. Supplementary Notes

Prepared in cooperation with the State of Pennsylvania and other agencies

16. Abstract (Limit: 200 words)

Water resources data for the 1981 water year for Pennsylvania consist of records of discharge and water quality of streams; contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 96 stations; contents at 13 lakes and reservoirs; water quality at 39 gaging stations; and water levels at 26 observation wells. Also included are data for 19 crest-stage, and 120 water-quality partial-record stations. Locations of these sites are shown on figures 5-8. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analysis. These data together with the data in Volumes 1 and 3 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

17. Document Analysis a. Descriptors

*Pennsylvania, *Hydrologic data, *Groundwater, *Surface waters, *Water Quality, Gaging Stations, Streamflow, Flow Rates, Lakes, Reservoirs, Chemical analysis, Sediments, Water temperature, Water analysis, Water levels, Water wells, Data collections, Sites.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement No restrictions on distribution This report may be purchased from: National Technical Information Service Springfield, VA 22161	19. Security Class (This Report) Unclassified	21. No. of Pages 345
	20. Security Class (This Page) Unclassified	22. Price

(See ANSI-Z39.18) See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

CONTENTS

Page

Preface III
List of gaging stations, in downstream order, for which records are published VI
Introduction 1
Cooperation 1
Summary of hydrologic conditions 2
Definition of terms 6
Downstream order and station numbers 11
Numbering system for wells and miscellaneous sites 12
Special networks and programs 12
Explanation of stage and water-discharge records 13
  Collection and computation of data 13
  Accuracy of field data and computed results 15
  Other data available 15
Explanation of water-quality records 15
  Collection and explanation of data 15
  Water analysis 15
  Water temperatures 16
  Sediment 16
Explanation of ground-water level records 16
  Collection of the data 16
Publications on techniques of water-resources investigations 17
Gaging station records 22
Discharge at partial-record stations and miscellaneous sites 273
  Crest-stage partial-record stations 273
  Miscellaneous sites 276
Analyses of samples collected at water-quality partial-record stations 278
Ground-water level records 307
Index 333

ILLUSTRATIONS

Figure 1. Comparison of precipitation in Susquehanna River basin above Harrisburg during the 1981 water year with mean precipitation for 1951-1980 2
2. Comparison of discharge at two long-term representative gaging stations during the 1981 water year with the median discharge for 1951-1980 3
3. Relation between mean 1981 seasonal water levels and long term mean water levels.. 4
4. Comparison of suspended-sediment discharge during the 1981 water year with the median suspended-sediment discharge for 1951-1980 5
5. System for numbering wells and miscellaneous sites 12
6-9. Maps showing:
  6. Locations of data-collection stations, and observation wells 18
  7. Locations of partial-record data-collection stations 19
  8. Locations of water-quality partial-record stations coal-hydrology network.. 20
  9. Locations of data collection and partial-record stations, Potomac River Basin 21

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (s) sediment)

Page

SUSQUEHANNA RIVER BASIN

CHEMUNG RIVER BASIN

- Tioga River near Mansfield (dcts) 22
  - Corey Creek near Mainesburg (d) 29
- Tioga River at Tioga (d) 30
- Tioga River at Tioga Junction (dct) 31
  - Cowanesque River near Lawrenceville (dt) 37
- Lakes in Chemung River Basin 40

Susquehanna River at Towanda (d) 42

TOWANDA CREEK BASIN

- Towanda Creek near Monroeton (d) 43

Susquehanna River at Meshoppen (d) 44

TUNKHANNOCK CREEK BASIN

- Tunkhannock Creek near Tunkhannock (d) 45

LACKAWANNA RIVER BASIN

- Reservoir in Lackawanna River Basin 49
- Lackawanna River near Forest City (d) 46
- Lackawanna River at Archbald (d) 47
- Lackawanna River at Old Forge (d) 48

Susquehanna River at Wilkes-Barre (d) 50

TOBY CREEK BASIN

- Toby Creek at Luzerne (d) 51

SOLOMON CREEK BASIN

- Solomon Creek at Wilkes-Barre (d) 52

WAPWALLOPEN CREEK BASIN

- Wapwallopen Creek near Wapwallopen (d) 53

FISHING CREEK BASIN

- Fishing Creek near Bloomsburg (d) 54

CATAWISSA CREEK BASIN

- Little Catawissa Creek:
  - Trexler Run near Ringtown (d) 55

Susquehanna River at Danville (dcbs) 56

WEST BRANCH SUSQUEHANNA RIVER BASIN

- West Branch Susquehanna River at Bower (dcs) 62
- West Branch Susquehanna River at Curwensville (d) 64
- West Branch Susquehanna River at Hyde (d) 65
  - Clearfield Creek at Dimeling (dcs) 66
  - Moshannon Creek at Osceola Mills (dcs) 68
- West Branch Susquehanna River at Karthaus (dcs) 70
  - Bennett Branch Sinnemahoning Creek:
    - Driftwood Branch Sinnemahoning Creek:
      - North Creek:
        - Waldy Run near Emporium (d) 72
    - Driftwood Branch Sinnemahoning Creek at Sterling Run (d) 73
  - Sinnemahoning Creek at Sinnemahoning (dcs) 74
    - First Fork Sinnemahoning Creek near Sinnemahoning (d) 76
  - Kettle Creek at Cross Fork (d) 77
  - Kettle Creek near Westport (d) 78
- West Branch Susquehanna River at Renovo (dcts) 79
  - Young Womans Creek near Renovo (dcs) 86
  - Bald Eagle Creek:
    - Spring Creek near Axemann (d) 92
    - Spring Creek at Milesburg (d) 93
  - Bald Eagle Creek below Spring Creek at Milesburg (d) 94
  - Bald Eagle Creek near Milesburg (t) 95
  - Bald Eagle Creek at Blanchard (dt) 97
    - Marsh Creek at Blanchard (d) 100
  - Beech Creek:
    - South Fork Beech Creek near Snow Shoe (dcs) 101
  - Beech Creek at Monument (dcs) 103
  - Bald Eagle Creek at Beech Creek Station (d) 105
  - Pine Creek:
    - Babb Creek at Morris (c) 106
      - Wilson Creek above Sand Run near Antrim (dcs) 107
        - Backswitch Mine Discharge at Antrim (c) 111
        - Mitchell Mine Discharge No. 1 at Antrim (c) 112
        - Mitchell Mine Discharge No. 2 at Antrim (dc) 113
        - Bridge Run at mouth at Antrim (c) 115
        - Anna S Mine Discharge No. 1 near Antrim (dc) 116
        - Basswood Run:
          - Hunter Drift Discharge near Antrim (dc) 118
          - Anna S Mine Discharge 2 near Antrim (c) 120

Page

SUSQUEHANNA RIVER BASIN--Continued

WEST BRANCH SUSQUEHANNA RIVER BASIN

- Pine Creek:
  - Babb Creek:
    - Wilson Creek:
      - Basswood Run at Mouth near Antrim (c) 121
    - Wilson Creek at Morris (c) 122
    - Stony Creek:
      - Paint Run:
        - Unnamed tributary to Paint Run near Morris (c) 123
    - Stony Fork near mouth near Blackwell (c) 124
  - Babb Creek at Blackwell (c) 125
- Pine Creek at Cedar Run (dcs) 126
  - Little Pine Creek:
    - Blockhouse Creek:
    - Blockhouse Creek near English Center (d) 128
- Pine Creek below Little Pine Creek near Waterville (d) 129
- Lycoming Creek near Trout Run (dcs) 130

West Branch Susquehanna River at Williamsport (dct) 132
- Loyalsock Creek at Loyalsockville (dcs) 140
- Muncy Creek near Sonestown (d) 142
- White Deer Creek:
  - Sand Spring Run near White Deer (d) 143

West Branch Susquehanna River at Lewisburg (dcbs) 144
- Chillisquaque Creek near Washingtonville (d) 151

Lakes and reservoir in West Branch Susquehanna River Basin 152

Susquehanna River at Sunbury (d) 154

SHAMOKIN CREEK BASIN

Shamokin Creek near Shamokin (d) 155

PENNS CREEK BASIN

Penns Creek at Penns Creek (d) 156

EAST MAHANTANGO CREEK BASIN

East Mahantango Creek near Dalmatia (d) 157

JUNIATA RIVER BASIN

Frankstown Branch Juniata River (head of Juniata River):

Frankstown Branch Juniata River at Williamsburg (d) 158
- Little Juniata River:
  - Bald Eagle Creek at Tyrone (d) 159
- Little Juniata River at Spruce Creek (d) 160

Juniata River at Huntingdon (dt) 161
- Raystown Branch Juniata River:
  - Dunning Creek at Belden (d) 164
- Raystown Branch Juniata River at Saxton (d) 165

Lake in Juniata River Basin 166
- Raystown Branch Juniata River below Raystown Dam near Huntingdon (dt) 167

Juniata River at Mapleton Depot (d) 170
- Aughwick Creek near Three Springs (d) 171
- Lost Creek:
  - Little Lost Creek at Oakland Mills (d) 172

Juniata River at Newport (dcbts) 173

SHERMAN CREEK BASIN

- Bixler Run near Loysville (d) 182

Sherman Creek at Shermans Dale (d) 183

CLARK CREEK BASIN

Reservoir in Clark Creek Basin 184

Clark Creek near Carsonville (d) 185

CONODOGUINET CREEK BASIN

Conodoguinet Creek:
- Letort Spring Run near Carlisle (d) 186

Conodoguinet Creek near Hogestown (d) 187

Susquehanna River at Harrisburg (dcbs) 188

YELLOW BREECHES CREEK BASIN

Yellow Breeches Creek near Camp Hill (d) 221

SWATARA CREEK BASIN

Swatara Creek at Harper Tavern (d) 222
- Quittapahilla Creek:
  - Beck Creek near Cleona (d) 223
  - Quittapahilla Creek near Bellegrove (d) 224

Swatara Creek near Hershey (d) 225

WEST CONEWAGO CREEK BASIN

West Conewago Creek near Manchester (d) 226

CODORUS CREEK BASIN

Codorus Creek at Spring Grove (d) 227
- South Branch Codorus Creek near York (d) 228

Codorus Creek near York (d) 229

Page

SUSQUEHANNA RIVER BASIN--Continued
CODORUS CREEK BASIN

Lake and reservoir in Codorus Creek Basin 230
Susquehanna River at Marietta (d) 231

CONESTOGA RIVER BASIN

Conestoga River at Lancaster (d) 232

PEQUEA CREEK BASIN
Pequea Creek:

Site No. 1 on Pequea Creek tributary at Strasburg (dc) 233
Site No. 2 on Pequea Creek tributary at Strasburg (dc) 238

Goods Run:

Goods Run tributary at Willow Street (dc) 245
Goods Run tributary at West Willow (dc) 254
Pequea Creek at Martic Forge (dc) 258
Pequea Creek tributary near Mt. Nebo (dc) 265

OCTORARO CREEK BASIN
West Branch Octoraro Creek:

Bowery run near Quarryville (d) 269

POTOMAC RIVER BASIN
North Branch Potomac River (head of Potomac River):
EVITTS CREEK BASIN

Evitts Creek near Centerville (d) 270

Potomac River:
TONOLOWAY CREEK BASIN

Tonoloway Creek near Needmore (d) 271

CONOCOCHEAQUE CREEK BASIN

Conococheaque Creek near Fayetteville (d) 272

INTRODUCTION

Water resources data for the 1981 water year for Pennsylvania consist of records of stage, discharge, and quality of streams; stage and contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 96 gaging stations; stage and contents at 13 lakes and reservoirs; water quality at 39 gaging stations; and water levels at 26 observation wells. Also included are data for 19 crest-stage, and 120 water-quality partial-record stations. Locations of these sites are shown on figures 5, 6, 7, and 8. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volumes 1 and 3 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States". Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States". Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States". Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from the Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report PA-81-2." These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (717) 782-3851.

COOPERATION

The U.S. Geological Survey and organizations of the Commonwealth of Pennsylvania have had cooperative agreements for the systematic collection of surface-water records during the periods 1919-21 and 1931 to date, water-quality records from 1944 to date, and ground-water records from 1925 to date. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

State Department of Environmental Resources, Clifford L. Jones, secretary, through the following: Office of Resources Management, Peter S. Duncan, deputy secretary; Bureau of Soil and Water Conservation, W.N. Peechatka, director; Office of Environmental Protection and Regulation, W.B. Middendorf, deputy secretary; Bureau of Topographic and Geologic Survey, A.A. Socolow, director.

Susquehanna River Basin Commission, R.J. Bielo, executive director.

City of Harrisburg, Paul E. Doutrich, mayor.

Letort Regional Authority, executive secretary

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 47 gaging stations. Assistance was also furnished by the National Weather Service, NOAA, U.S. Department of Commerce, Soil Conservation Service, U.S. Department of Agriculture.

The following organizations aided in collecting records:

Municipality of Lancaster; P.H. Glatfelter Co.; Pennsylvania Power and Light Co.; Safe Harbor Water Power Corp.; and York Water Co.

SUMMARY OF HYDROLOGIC CONDITIONS

Precipitation for the 1981 water year was about 2.5 inches below the 1951-80 average for the basin except for the western edge, which was normal to above normal. Figure 1 compares monthly precipitation for 1981 with average precipitation for 1951-80 for the Susquehanna River basin above Harrisburg. Drought conditions caused by deficient rainfall in the central and eastern parts of the basin during the summer of 1980 continued until February 1981. Rainfall during the remainder of the year was near or below normal except during June.

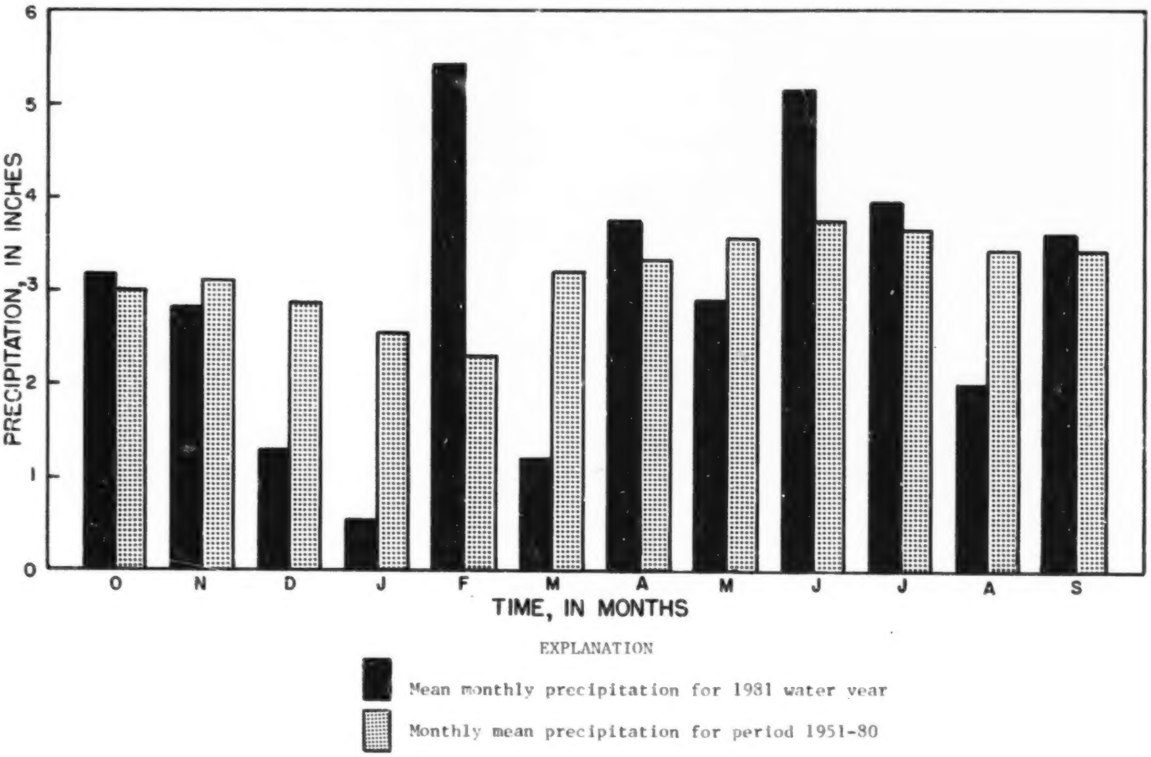


FIGURE 1.--Comparison of percipitation in Susquehanna River basin above Harrisburg during the 1981 water year with mean precipitation for 1951-1980.

(from U.S. Department of Commerce, National Oceanic and Atmospheric Administration)

Streamflow for the Susquehanna River basin was deficient during water year 1981. Figure 2 compares 1981 monthly and yearly mean discharges with median discharges for 1951-80 at two long-term representative gaging stations. The yearly mean discharge at the basin index station, Susquehanna River at Harrisburg, was 31 percent below the 1951-80 median discharge. The yearly mean discharge at Juniata River at Newport was 35 percent below the 1951-80 median discharge. Monthly discharges at both sites were excessive in February and near normal from May to September. During the remainder of the year monthly discharges were deficient. There were no significant floods during the year.

Discharges at many sites were near the minimum discharges reported for last year. At one site, Swatara Creek at Harper Tavern, in the lower part of the basin, the minimum discharge was slightly lower than minimums reported for the period, 1951-80, except during the drought of 1961-66.

The average storage in eight major reservoirs in the basin during water year 1981 was one percent above normal for 1971-80. Reservoirs in the western part of the basin had about 10 percent more water than normal for the period. Reservoirs in the north and east, however, ranged from 10 to 20 percent below normal. DeHart Reservoir, the only water supply for the city of Harrisburg, had a minimum storage of 7,760 acre-feet, 44 percent of average storage and 59 percent of the minimum recorded during 1971-80.

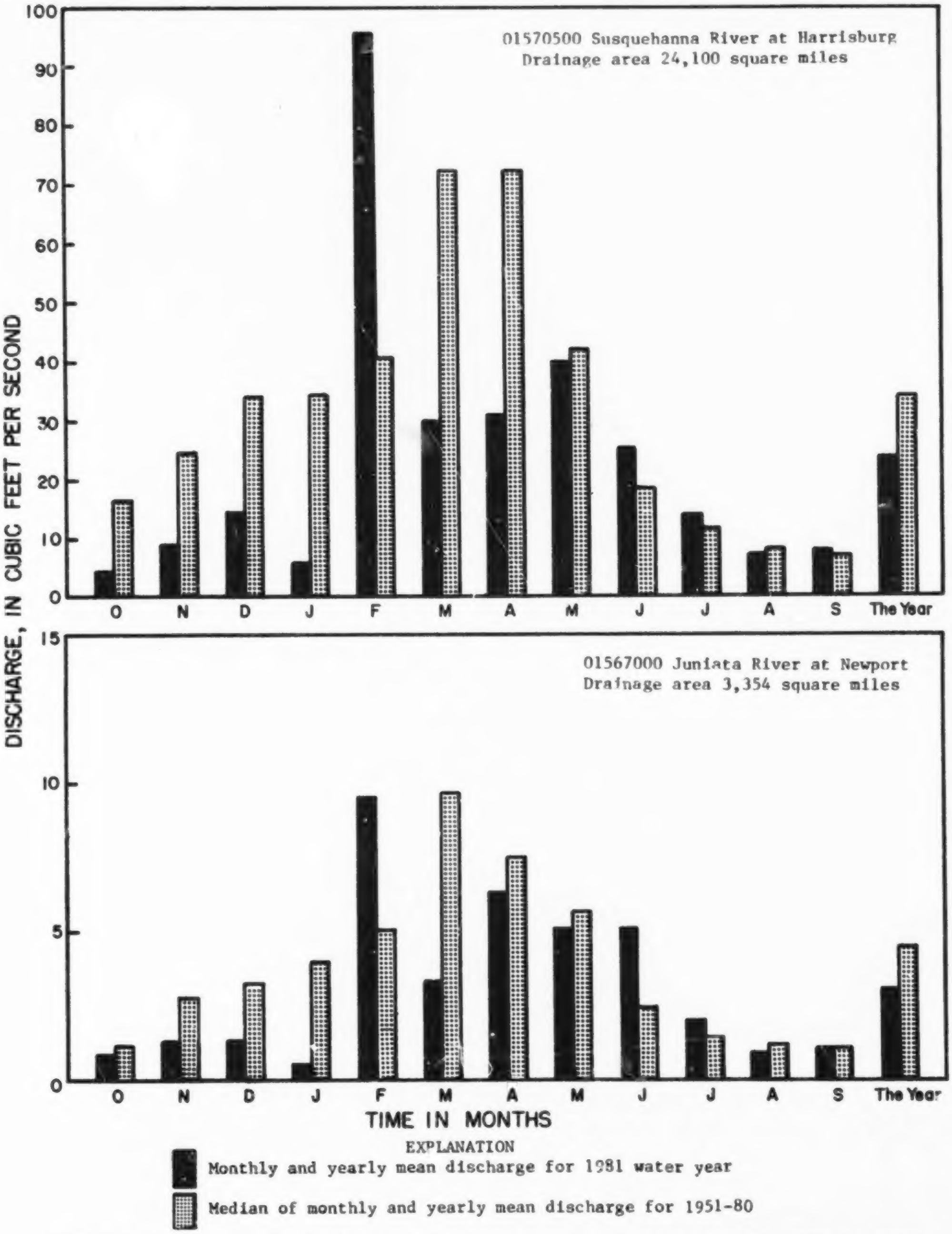
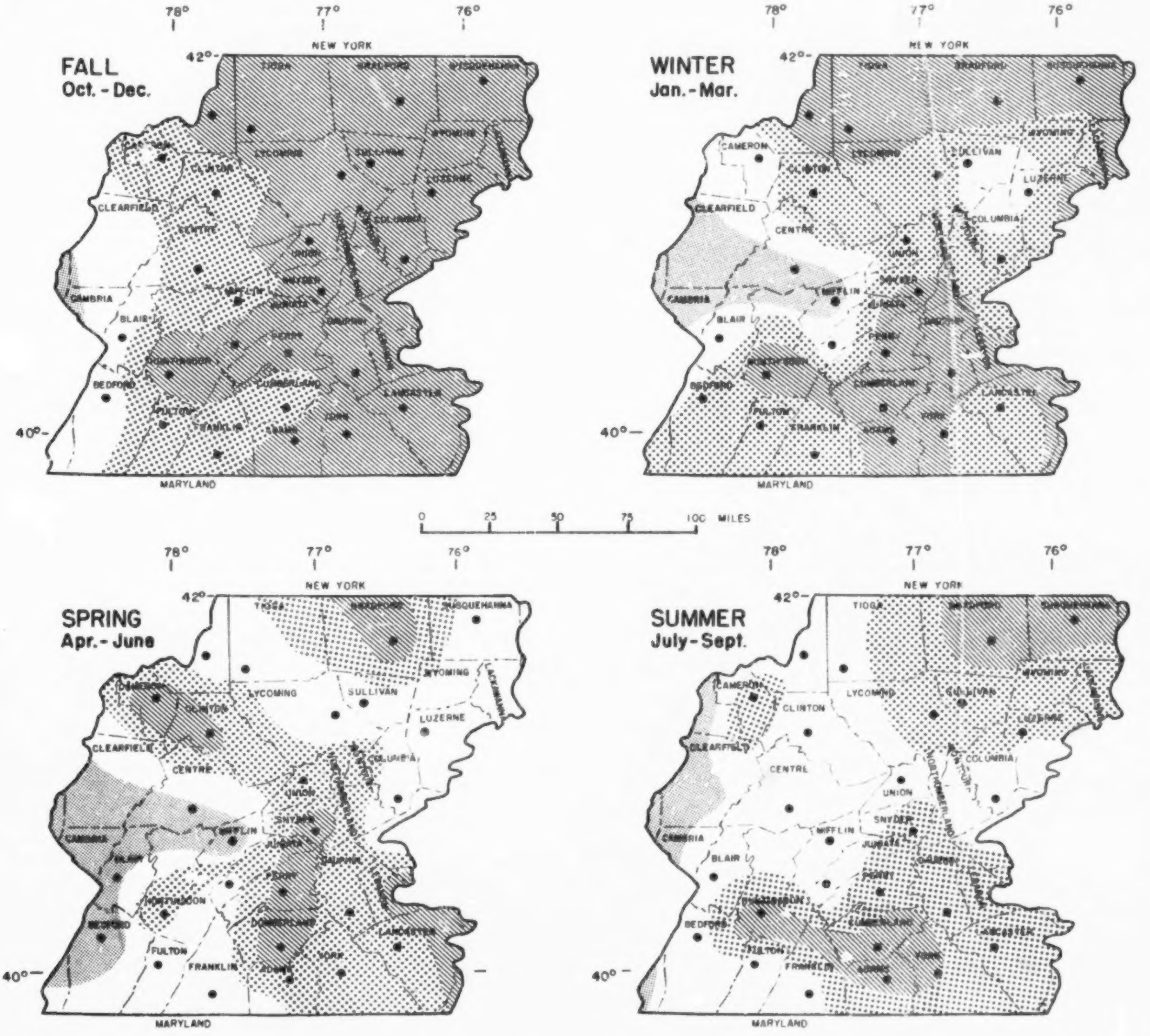


FIGURE 2.--Comparison on discharge at two long-term representative gaging stations during the 1981 water year with the median discharge for 1951-80.

Antecedent drought conditions followed by below-normal recharge in the fall and winter of 1981 caused exceptionally low ground-water levels through most of water year 1981 under much of the basin. The seasonal average position of water levels in observation wells relative to long-term seasonal average levels is shown on Figure 3. Long-term average water levels were calculated from records ranging from about 8 to 45 years in length.

During the fall all but the extreme western part of the basin had water levels that were below or much below normal. Many shallow wells went dry, and the yields of some public supply wells declined when water levels fell below water-bearing zones. Abundant recharge in February eased water-supply problems, but levels remained below normal during the winter. Through spring and summer, water levels under a large proportion of the basin gradually reached the normal range. Summer water levels under much of the central and eastern parts of the basin, however, remained below normal.


FALL
Oct. - Dec.
WINTER
Jan. - Mar.
SPRING
Apr. - June
SUMMER
July - Sept.
78°
77°
76°
42°
40°
NEW YORK
MARYLAND
TIOGA
BRADFORD
SUSQUEHANNA
WYOMING
LACKAWANNA
LYCOMING
SULLIVAN
LUZERNE
CAMERON
CLINTON
CLEARFIELD
CENTRE
UNION
COLUMBIA
NORTHUMBERLAND
SNYDER
MIFFLIN
JUNIATA
CAMBRIA
BLAIR
HUNTINGDON
PERRY
DAUPHIN
CUMBERLAND
LANCASTER
BEDFORD
FULTON
FRANKLIN
ADAMS
YORK
0
25
50
75
100 MILES

EXPLANATION

GROUND-WATER LEVELS

MUCH BELOW NORMAL	BELOW NORMAL	NORMAL	ABOVE NORMAL
▨	▩	☐	▒
More than one standard deviation below long term mean water level.	One-half to one standard deviation below long term mean water level.	Within one-half standard deviation of long term mean water level.	One-half to one standard deviation above long term mean water level.

● Observation wells

FIGURE 3.--Relation between mean 1981 seasonal water levels and long term mean water levels.

The chemical quality of surface waters in the Susquehanna River basin was similar to that measured in 1980. Data collected at a hydrologic bench-mark station, Young Womans Creek near Renovo, were within normal ranges for a pristine stream.

Variations in water quality observed at four NASQAN (National Stream Quality Accounting Network) stations were mainly a result of changes in streamflow. Major ions, nutrients, metals, pesticides, and biological data were generally within the normal ranges observed at these sites. Concentrations of several constituents were elevated because samples were collected at either higher or lower flows than were previously sampled.

Water-quality samples collected at Susquehanna River at Harrisburg contained dissolved manganese as high as 390 ug/L. Some pesticides were also found. Chlordane and PCBs (polychlorinated biphenyls) had maximum concentrations of 0.10 ug/L. The herbicides atrazine and 2,4D had concentrations as high as 3.4 ug/L and 0.41 ug/L, respectively.

Samples collected at numerous small streams and coal mine discharges as part of the Coal Hydrology Network had high concentrations of dissolved iron, manganese, and other metals. Concentrations of iron and manganese ranged from 0 to 900,000 ug/L and 99,000 ug/L, respectively. Zinc concentrations as high as 11,000 ug/L were measured at two sites in Tioga County.

Data collected in Lancaster County showed that several herbicides and nitrate were present in high concentrations in streams draining agricultural lands. Maximum herbicide concentrations measured in surface waters were 38 ug/L atrazine and 11 ug/L alachlor. Smaller quantities of propazine and simazine also were found. Pequea Creek basin had nitrate concentrations which averaged about 6 mg/L as N. Tributaries to Pequea Creek averaged from 3 mg/L to 20 mg/L nitrate as N. Surface and ground-water sampling has shown that there is a generalized problem of nitrate contamination of ground-water supplies in and around Lancaster County. Nitrates in ground water are usually highest in areas underlain by limestone.

Suspended-sediment data collected at Juniata River at Newport follow the same general trends as discharge. Figure 4 compares 1981 monthly and yearly mean suspended-sediment discharges with median suspended-sediment discharges for 1951-80 at Juniata River at Newport. Total suspended-sediment discharge for 1981 was 59 percent of the normal annual suspended-sediment discharge. Monthly suspended-sediment discharges were deficient except during February, June, July, and September.

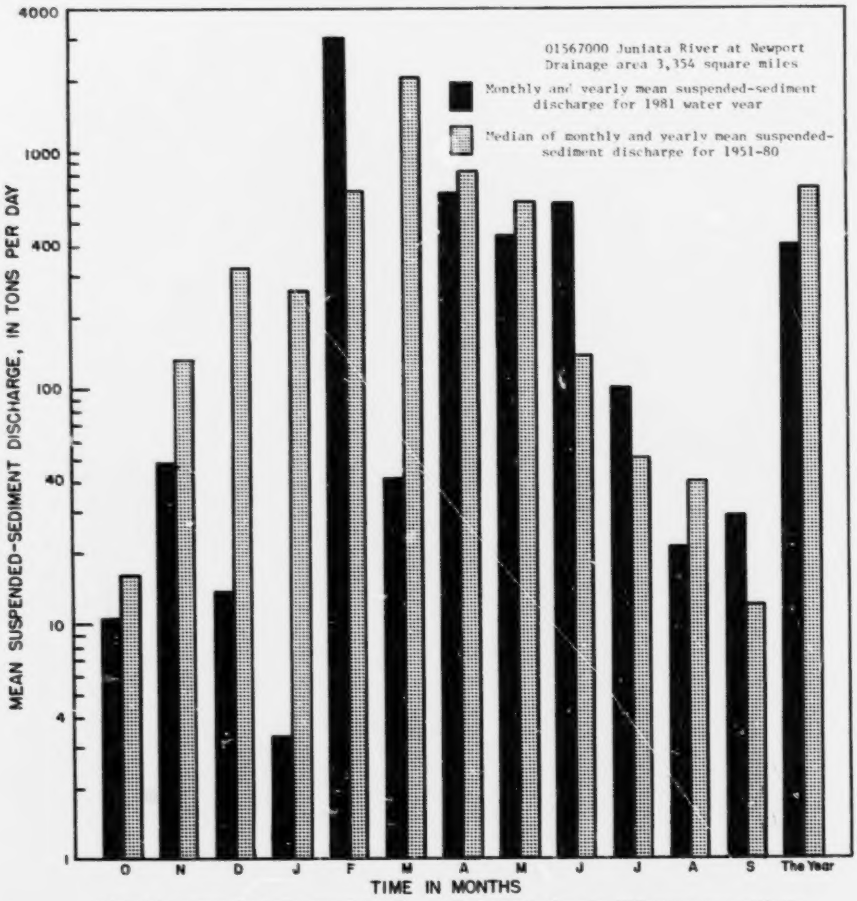


FIGURE 4.--Comparison of suspended-sediment discharge during the 1981 water year with the median suspended-sediment discharge for 1951-80.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/s, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton,benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	0.00024 - 0.004	Sedimentation.
Silt	0.004 - 0.062	Sedimentation.
Sand	0.062 - 2.0	Sedimentation or sieve.
Gravel	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth ($1x10^{-12}$) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that orginiates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in the solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 mm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexageria
Species	Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons-per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 03041000, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "041000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and some miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote the degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites with a 1-second grid. See figure 5 below.

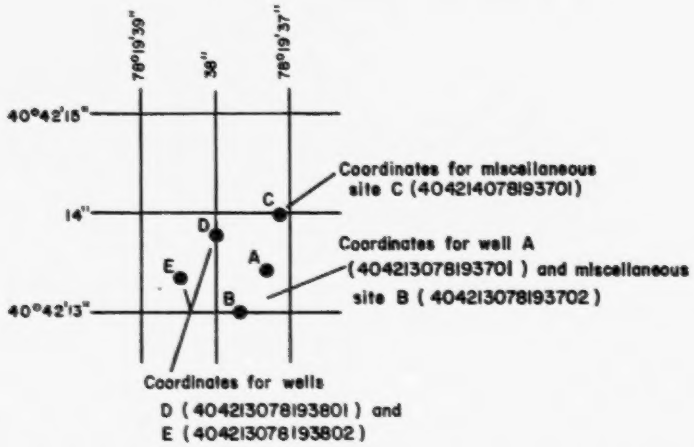

78°19'39"
38"
78°19'37"
40°42'15"
14"
40°42'13"
A
B
C
D
E
Coordinates for miscellaneous site C (404214078193701)
Coordinates for well A (404213078193701) and miscellaneous site B (404213078193702)
Coordinates for wells D (404213078193801) and E (404213078193802)

Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

A local well number is also assigned to the wells and consists of a 2-letter abbreviation of the county in which the well is located and a sequential number assigned at the time the well was scheduled.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a benchmark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence to tritium in the Nation's surface waters. In addition to the surface-water station in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurement of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents.

This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 6.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following "EXTREMES," for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used for computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended-sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longtitude and (2) a local number that is provided for local needs. See figure 5.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above National Geodetic Vertical Datum is given in the well description. National Geodetic Vertical Datum is the datum plane on which the national network of precise levels is based. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Wells equipped with recording gages have water levels reported for each day.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

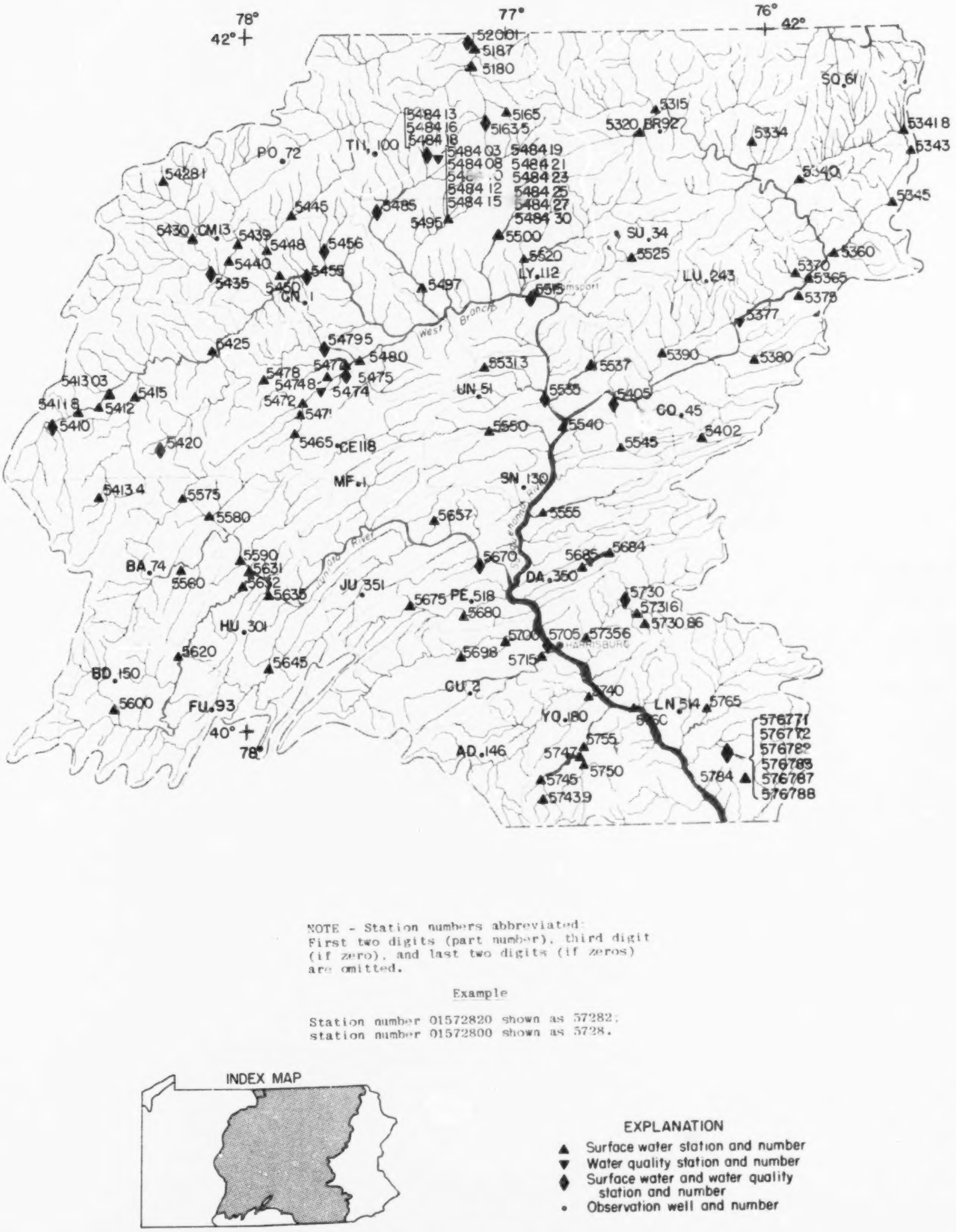
Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Kocpman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

BEST DOCUMENT AVAILABLE

SUSQUEHANNA RIVER BASIN


78°
77°
76°
42°
40°
78°
520001
5187
5180
5165
51635
5315
5320
BR.92
SQ.61
53418
5343
5334
5340
5345
548413
548416
548418
548403
548408
548412
548415
548419
548421
548423
548425
548427
548430
TI.100
PO.72
5428
5485
5495
5445
5430
CM.13
5439
5448
5456
5440
5435
5450
5455
CN.1
5497
5500
5520
LY.112
5515
SU.34
5525
LU.243
5360
5370
5365
5375
5377
West Branch
54795
5472
5480
5478
54748
5475
5474
5472
5471
5425
541303
5415
54118
5412
5410
5420
5465
CE.118
55313
UN.51
5537
5390
5380
5535
5405
CO.45
5540
5550
5545
5402
MF.1
SN.130
54134
5575
5580
5555
5657
5590
5631
5632
5635
BA.74
5560
5670
5685
5684
DA.350
JU.351
Juniata River
5675
PE.518
5680
5730
57316
573086
HU.301
5700
5705
57356
HARRISBURG
5698
5715
5620
5645
BD.150
CU.2
5740
LN.514
5765
5600
FU.93
YO.180
576C
576771
576772
576780
576783
576787
576788
AD.146
5755
5747
5750
5784
5745
57439
INDEX MAP

NOTE - Station numbers abbreviated: First two digits (part number), third digit (if zero), and last two digits (if zeros) are omitted.

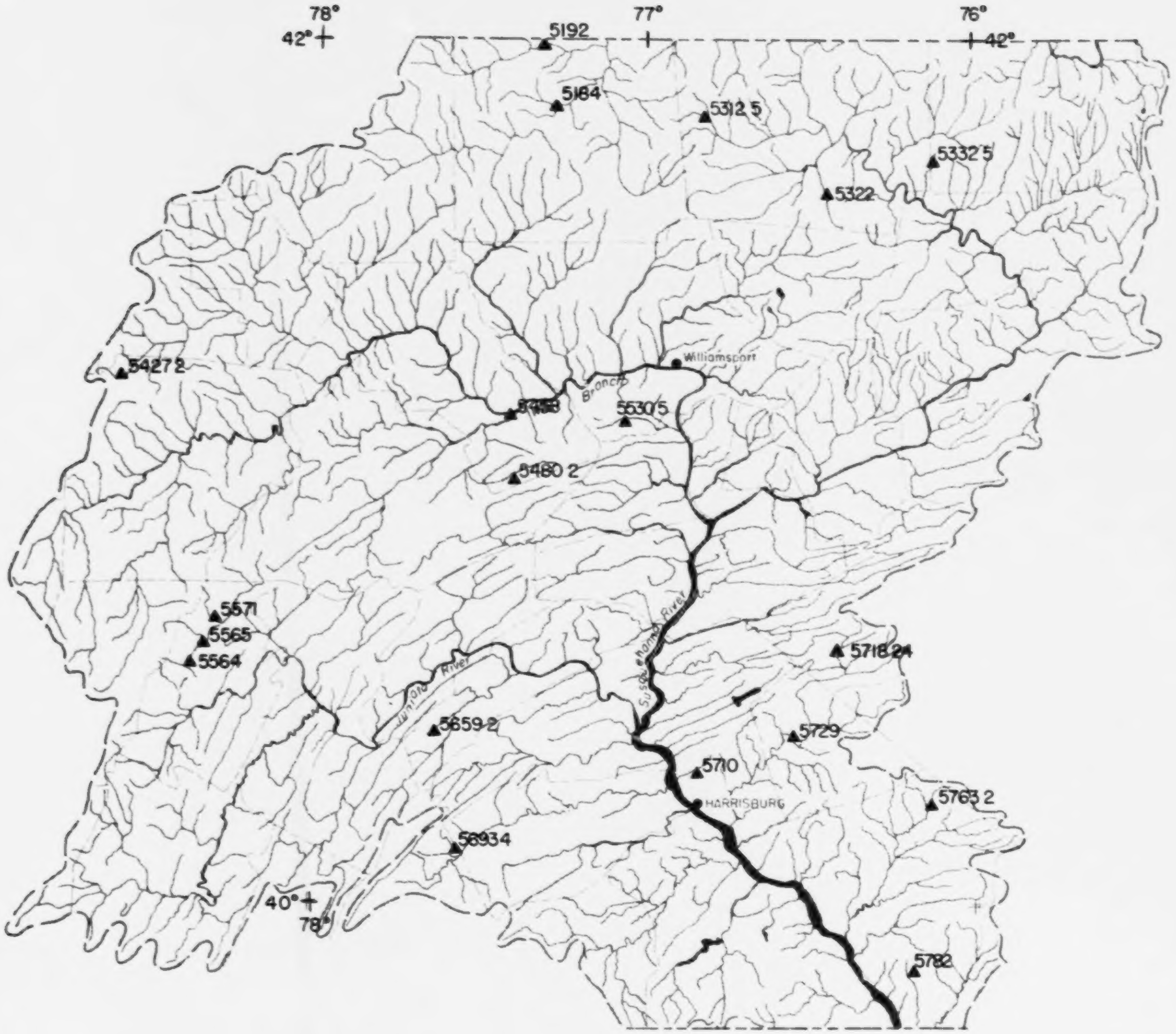
Example

Station number 01572820 shown as 57282; station number 01572800 shown as 5728.

EXPLANATION

- ▲ Surface water station and number
- ▼ Water quality station and number
- ◆ Surface water and water quality station and number
- • Observation well and number

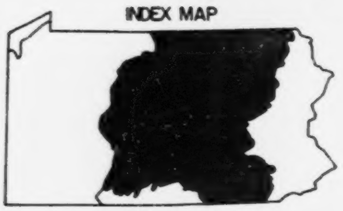
FIGURE 6. —Location of data collection stations and observation wells


78°
42°
5192
77°
76°
42°
5184
5312 5
5332 5
5322
5427 2
Williamsport
Branch
5530 5
5480 2
5571
5565
5564
Juniata River
Susquehanna River
5718 24
5659 2
5729
5710
HARRISBURG
5763 2
5693 4
40°
78°
5782

NOTE - Station numbers abbreviated:
First two digits (part number), third digit
(if zero), and last two digits (if zeros)
are omitted.

Example

Station number 01572820 shown as 57282;
station number 01572800 shown as 5728.

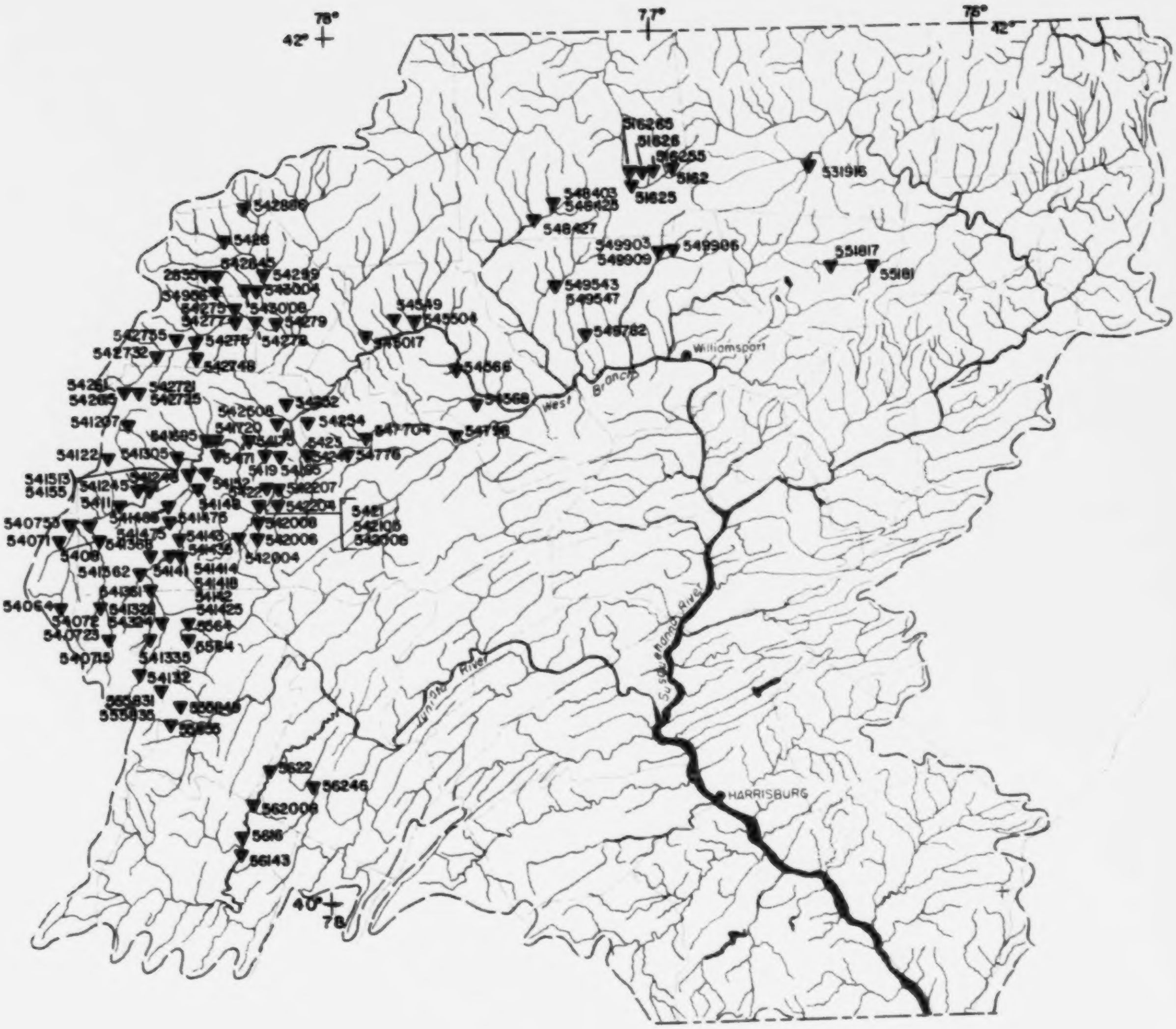


EXPLANATION

▲ Surface water station and number

FIGURE 7.—Locations of partial-record data collection stations

BEST DOCUMENT AVAILABLE


78°
42°
77°
76°
42°
542886
5426
542845
54289
2835
548004
54986
548008
54275
54279
54277
542755
54276
54278
542732
542748
545017
54549
545504
54566
54568
54798
547704
54776
54261
54265
542721
542725
54292
542608
54254
541207
541720
541695
5423
54122
541305
5471
5424
5419
54195
541513
54155
541245
54132
542207
5411
54148
542204
5421
542108
542008
540753
541488
541476
542008
54071
541475
54143
542006
5408
541368
54138
542004
541362
54141
541414
541418
54142
541425
541361
54064
54132
54072
54324
5564
540723
6584
540715
541335
54132
555831
555835
550146
55056
5622
56246
562006
5616
56143
40°
78°
516265
51626
516255
5162
51625
531916
548403
548425
548427
549903
549909
549906
551817
55181
549543
549547
549782
Williamsport
West Branch
Susquehanna River
Juniata River
HARRISBURG

EXPLANATION

▼ Water quality station and number

NOTE - Station numbers abbreviated: first two digits (part number), third digit (if zero), and last two digits (if zeros) are omitted.

EXAMPLE

Station number 01572820 shown as 57282;
Station number 01572800 shown as 5728.

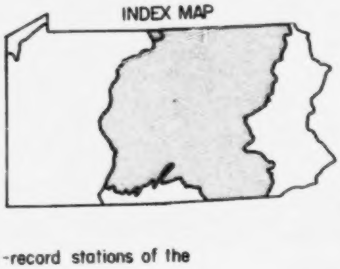
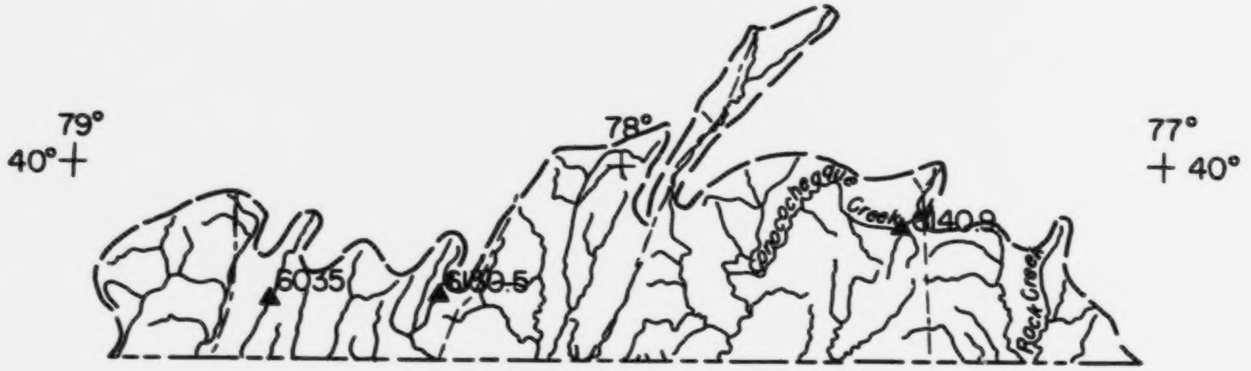


FIGURE 8.- Locations of water-quality partial-record stations of the coal-hydrology network.

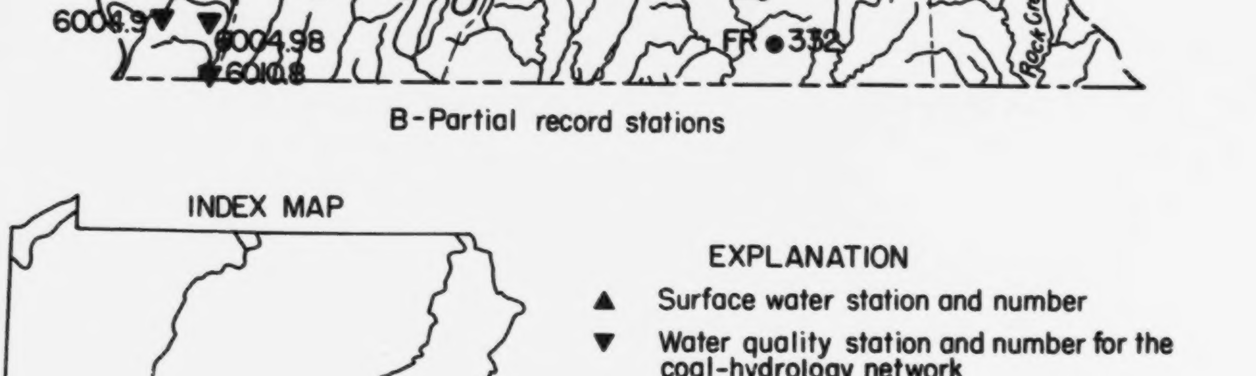

79°
40°
78°
77°
40°
6035
6130.5
Conococheague Creek
6140.9
Rock Creek

A-Data collection stations

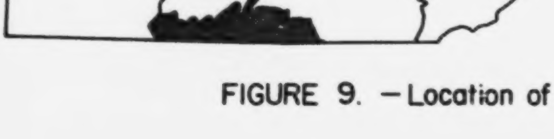
NOTE - Station numbers abbreviated: First two digits (part number), third digit (if zero), and last two digits (if zeros) are omitted.

Example

Station number 01572820 shown as 57282; station number 01572800 shown as 5728.


79°
40°
78°
77°
40°
6007
6003.9
6004.98
6010.8
Conococheague Creek
FR 332
Rock Creek

B-Partial record stations



EXPLANATION

▲ Surface water station and number

▼ Water quality station and number for the coal-hydrology network

● Observation well and number

FIGURE 9. —Location of data collection and partial record stations.

01516350 TIOGA RIVER NEAR MANSFIELD, PA

LOCATION.--Lat 41°47'34", long 77°04'44", Tioga County, Hydrologic Unit 02050104, 0.6 mi (0.9 km) downstream from Slate Creek and 1.0 mi (1.6 km) south of Mansfield.

DRAINAGE AREA.--153 mi^2 (396 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,121.28 ft (341.766 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--5 years, 223 ft^3/s (6.316 m^3/s), 19.83 in/yr (504 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,940 ft^3/s (253 m^3/s) May 14, 1978, gage height, 16.17 ft (4.929 m), from rating curve extended above 1,400 ft^3/s (39.6 m^3/s); minimum discharge, 9.5 ft^3/s (0.27 m^3/s) Oct. 1, 2, 1980; minimum gage height, 7.75 ft (2.362 m) Sept. 12, 13, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1975 reached an approximate stage of 20.13 ft (6.14 m), from floodmarks, approximate discharge 18,000 ft^3/s (510 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1730	ice jam		*13.89	4.234	Feb. 23	2200	*3,280	92.9	12.87	3.923

Minimum discharge, 9.5 ft^3/s (0.27 m^3/s), Oct. 1, 2, gage height, 9.06 ft (2.761 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	22	47	62	26	437	183	470	59	92	36	15
2	11	20	60	58	100	383	328	533	104	157	32	18
3	12	18	170	54	90	321	230	411	124	130	32	21
4	15	18	105	51	80	250	193	354	275	130	33	24
5	13	18	95	47	72	220	206	304	131	121	31	25
6	12	17	86	44	66	180	197	272	97	124	28	27
7	12	17	81	41	62	165	160	236	79	95	26	25
8	11	22	82	39	58	157	144	188	67	79	28	37
9	11	27	90	37	54	148	146	160	104	68	26	45
10	10	28	110	36	52	145	155	144	87	61	24	30
11	12	25	90	35	1100	141	149	416	70	54	23	24
12	11	22	76	34	740	131	192	563	59	49	26	21
13	12	21	66	32	520	132	338	419	53	44	25	19
14	11	20	62	31	400	117	355	351	138	44	23	19
15	11	20	60	30	330	105	384	315	1190	39	23	18
16	11	17	58	28	300	105	309	380	498	36	24	17
17	11	16	56	27	360	90	289	295	384	35	23	17
18	12	18	56	26	560	84	266	229	231	33	20	16
19	12	26	58	25	1000	82	209	192	287	31	19	16
20	12	22	56	27	2050	80	186	167	1130	35	18	20
21	13	20	54	28	1410	78	160	145	778	61	16	15
22	12	19	52	30	1110	76	144	129	651	48	16	17
23	11	20	52	32	1650	79	225	115	510	36	16	21
24	11	27	50	34	1670	81	345	103	365	31	16	18
25	98	81	50	35	935	83	287	96	292	28	16	16
26	216	72	49	36	719	82	214	97	230	30	16	15
27	64	52	49	36	579	97	184	91	169	38	15	15
28	42	50	48	36	498	94	195	84	134	35	14	15
29	32	56	66	35	---	90	726	80	114	85	14	14
30	27	51	72	30	---	124	575	78	102	62	16	13
31	24	---	68	27	---	223	---	69	---	43	15	---
TOTAL	781.9	862	2174	1123	16591	4580	7674	7486	8512	1954	690	613
MEAN	25.2	28.7	70.1	36.2	593	148	256	241	284	63.0	22.3	20.4
MAX	216	81	170	62	2050	437	726	563	1190	157	36	45
MIN	9.9	16	47	25	26	76	144	69	53	28	14	13
CFSM	.17	.19	.46	.24	3.88	.97	1.67	1.58	1.86	.41	.15	.13
IN.	.19	.21	.53	.27	4.03	1.11	1.87	1.82	2.07	.48	.17	.15

CAL YR 1980	TOTAL	55785.9	MEAN	152	MAX	1670	MIN	9.9	CFSM	.99	IN	13.56
WTR YR 1981	TOTAL	53040.9	MEAN	145	MAX	2050	MIN	9.9	CFSM	.95	IN	12.90

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

PERIOD OF RECORD.--May 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
pH: October 1976 to current year.
WATER TEMPERATURES: October 1976 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1976.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 927 micromhos Aug. 30; minimum, 72 micromhos Feb. 12.
pH: Maximum, 6.6 units Apr. 29; minimum, 3.3 units Oct. 5, 10, 14, 24, Nov. 6, 13, 17-19.
WATER TEMPERATURES: Maximum, 29.0°C July 10; minimum, 0.0°C Nov. 12-13, Feb. 12-13, Mar. 13.

REVISIONS.--The maximum, minimum, and mean daily values for specific conductance, pH, and water temperature for August 4 to 12, 1980, have been discredited due to an equipment malfunction. These values should not be used.

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT										
23...	1715	10	810	3.4	10.0	2.8	139	--	350	565
NOV										
26...	1015	72	325	4.4	1.0	.9	45	--	130	211
DEC										
30...	1300	72	495	3.6	.5	2.0	99	--	200	299
JAN										
26...	1140	E36	630	3.6	.5	1.8	89	--	260	390
FEB										
26...	1015	700	250	3.9	2.5	1.2	60	--	81	153
MAR										
27...	0950	96	345	4.0	5.0	2.1	104	--	150	228
APR										
22...	1230	144	263	4.2	10.0	.9	45	--	93	152
MAY										
20...	0915	175	262	4.2	9.0	.8	40	--	94	83
JUN										
17...	1445	383	185	4.6	22.0	.5	25	1	62	130
JUL										
17...	1440	35	695	3.7	27.0	2.4	119	--	260	459
AUG										
11...	0800	19	715	3.7	22.0	3.1	154	--	310	484
SEP										
15...	1100	17	753	3.5	20.0	2.2	109	--	280	1370

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT										
23...	.77	16.5	2300	200	2100	10000	0	10000	2	.06
NOV										
26...	.29	41.0	3300	2800	530	2900	0	3900	10	1.9
DEC										
30...	.41	58.1	3000	1300	1700	5500	0	5500	--	--
JAN										
26...	.53	--	2900	400	2500	6200	0	7400	1	--
FEB										
26...	.21	289	2500	800	1700	2300	0	2400	22	42
MAR										
27...	.31	59.1	2400	1200	1200	44000	44000	10	8	2.1
APR										
22...	.21	59.1	1600	100	1500	2500	0	2500	4	1.6
MAY										
20...	.11	39.2	1400	450	950	2900	100	2800	7	3.3
JUN										
17...	.18	134	1500	680	820	1800	100	1700	2	2.1
JUL										
17...	.62	43.4	1200	0	1200	9300	0	9700	1	.09
AUG										
11...	.66	24.8	590	40	550	9400	0	9700	1	.05
SEP										
15...	1.8	65.8	1000	330	670	9500	0	9600	1	.05

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	911	896	904	622	591	610	408	386	399	534	494	516
2	919	890	903	651	621	637	416	372	405	515	509	512
3	909	886	895	675	651	661	371	222	265	536	514	523
4	899	852	866	696	675	683	299	266	284	559	537	549
5	856	815	829	703	694	700	332	295	309	597	546	573
6	827	816	821	711	692	703	346	322	331	593	575	581
7	851	827	837	718	701	711	---	---	---	581	565	569
8	857	839	847	726	688	711	---	---	---	586	567	571
9	874	844	854	688	601	644	---	---	---	616	587	603
10	884	867	873	602	577	586	---	---	---	632	616	622
11	885	851	863	578	559	566	---	---	---	651	622	637
12	871	827	854	596	563	579	---	---	---	671	652	661
13	827	815	822	608	577	597	---	---	---	691	662	678
14	848	826	834	626	599	616	---	---	---	695	687	690
15	851	831	840	638	620	629	---	---	---	688	670	680
16	853	831	843	642	626	634	---	---	---	670	649	658
17	855	833	841	668	620	648	---	---	---	669	647	655
18	854	826	836	647	612	629	---	---	---	656	645	650
19	842	834	839	656	566	600	---	---	---	670	625	652
20	835	817	824	592	567	582	446	424	436	651	609	633
21	827	815	820	635	576	608	554	439	525	644	612	628
22	820	805	811	619	586	598	534	502	515	649	626	635
23	833	810	818	619	566	599	532	506	516	635	616	625
24	839	819	827	578	508	555	508	481	486	620	600	609
25	---	---	---	507	328	409	487	463	472	613	597	602
26	---	---	---	328	309	318	524	487	507	610	582	598
27	---	---	---	356	327	345	512	503	508	582	493	524
28	---	---	---	376	357	369	511	502	507	547	498	526
29	---	---	---	379	364	373	506	481	496	537	510	522
30	537	472	507	386	364	374	502	461	479	582	511	535
31	592	537	569	---	---	---	521	463	480	613	565	589
MONTH	919	472	822	726	309	576	554	222	440	695	493	600

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	652	602	624	285	269	277	238	215	231	152	133	141
2	652	166	315	301	285	292	219	180	193	148	133	140
3	417	281	330	336	301	316	207	191	199	172	148	160
4	---	---	---	375	308	347	211	203	208	195	172	183
5	---	---	---	346	314	338	215	203	210	211	195	202
6	362	354	358	383	316	359	219	199	208	219	211	216
7	391	363	377	387	367	378	238	219	227	234	219	225
8	421	392	410	375	363	373	250	234	244	258	234	243
9	449	422	429	375	367	372	251	239	248	273	254	264
10	464	443	448	367	351	362	245	230	236	289	273	280
11	465	77	148	355	348	351	249	223	239	286	139	204
12	183	72	115	359	348	353	229	199	216	---	---	---
13	302	185	269	355	336	346	199	176	184	166	140	154
14	292	252	272	387	316	353	185	159	177	191	172	179
15	---	---	---	398	336	379	168	155	161	207	189	199
16	265	219	249	383	336	353	184	168	175	187	176	180
17	218	174	201	445	371	407	182	177	180	215	187	200
18	---	---	---	504	387	432	193	180	185	238	215	225
19	---	---	---	465	394	423	211	193	203	258	238	248
20	---	---	---	433	391	418	226	212	218	274	255	264
21	---	---	---	437	410	421	242	225	235	297	273	284
22	---	---	---	422	406	414	256	242	249	324	293	305
23	---	---	---	422	402	408	255	180	225	333	313	322
24	---	---	---	449	355	404	180	170	174	359	332	342
25	---	---	---	402	379	389	183	176	179	379	355	365
26	254	219	242	415	361	386	195	183	190	375	367	371
27	269	254	263	394	344	363	207	191	200	383	367	373
28	273	266	271	351	332	339	207	172	202	394	379	386
29	---	---	---	355	344	347	168	121	140	402	387	394
30	---	---	---	348	266	319	133	125	128	406	391	399
31	---	---	---	262	215	227	---	---	---	437	402	414
MONTH	652	72	316	504	215	363	256	121	202	437	133	262

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	473	437	449	---	---	---	---	---	---	897	889	893
2	473	273	398	---	---	---	---	---	---	894	858	880
3	293	262	274	---	---	---	---	---	---	883	792	843
4	259	179	203	---	---	---	656	581	616	792	750	778
5	266	199	234	---	---	---	653	635	646	750	717	735
6	---	---	---	---	---	---	675	648	660	717	688	700
7	---	---	---	---	---	---	702	675	688	707	641	685
8	---	---	---	---	---	---	708	695	700	649	548	600
9	406	277	323	465	440	448	702	684	694	566	501	524
10	351	289	314	504	468	481	718	698	703	552	516	528
11	402	355	377	541	504	518	738	718	728	608	552	582
12	---	---	---	568	540	551	753	734	743	644	609	628
13	---	---	---	586	568	576	744	713	727	682	645	662
14	---	---	---	588	560	578	727	709	717	707	682	692
15	258	98	128	624	589	605	729	686	715	727	707	715
16	156	98	128	645	622	634	717	686	699	753	727	740
17	199	156	177	661	645	653	733	708	717	768	754	759
18	254	199	230	682	660	672	761	727	740	779	767	772
19	293	148	269	690	681	686	781	758	771	805	779	789
20	125	90	110	690	654	674	804	776	787	839	710	799
21	167	115	145	---	---	---	831	806	816	762	669	707
22	195	164	184	548	508	520	850	831	839	783	763	777
23	223	168	199	---	---	---	863	845	854	798	750	779
24	262	223	245	---	---	---	880	863	869	752	725	739
25	275	240	268	---	---	---	894	879	884	766	752	756
26	312	277	287	531	520	529	894	882	889	790	766	776
27	348	312	329	---	---	---	894	879	886	790	770	783
28	391	351	367	531	496	514	896	892	894	775	759	765
29	---	---	---	496	324	403	923	896	907	800	761	780
30	---	---	---	---	---	---	927	909	921	823	800	809
31	---	---	---	---	---	---	907	844	867	---	---	---
MONTH	473	90	256	690	324	565	927	581	774	897	501	733

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3.5	3.4	3.4	3.5	3.5	3.5	4.1	4.0	4.1	3.5	3.5	3.5
2	3.5	3.4	3.4	3.5	3.4	3.4	4.2	4.0	4.1	3.5	3.5	3.5
3	3.5	3.4	3.4	3.5	3.4	3.4	4.6	4.0	4.3	3.5	3.5	3.5
4	3.4	3.4	3.4	3.5	3.4	3.5	---	---	---	3.5	3.4	3.4
5	3.4	3.3	3.4	3.5	3.4	3.4	4.3	4.0	4.1	3.4	3.4	3.4
6	3.5	3.4	3.4	3.4	3.3	3.4	---	---	---	3.5	3.4	3.4
7	3.4	3.4	3.4	3.5	3.4	3.4	---	---	---	3.6	3.5	3.6
8	3.5	3.4	3.4	3.5	3.4	3.5	---	---	---	3.7	3.6	3.6
9	3.5	3.4	3.4	3.5	3.4	3.4	---	---	---	3.6	3.6	3.6
10	3.4	3.3	3.4	3.5	3.4	3.5	---	---	---	3.6	3.5	3.6
11	3.5	3.4	3.4	3.5	3.4	3.5	---	---	---	3.5	3.5	3.5
12	3.4	3.4	3.4	3.5	3.4	3.4	---	---	---	3.5	3.4	3.5
13	3.4	3.4	3.4	3.6	3.3	3.5	---	---	---	3.5	3.4	3.5
14	3.5	3.3	3.4	3.6	3.5	3.5	---	---	---	3.5	3.5	3.5
15	3.5	3.4	3.4	3.5	3.4	3.5	---	---	---	3.5	3.5	3.5
16	3.5	3.4	3.4	3.5	3.4	3.4	---	---	---	3.6	3.5	3.6
17	3.5	3.5	3.5	3.4	3.3	3.3	---	---	---	3.6	3.5	3.6
18	3.5	3.5	3.5	3.4	3.3	3.4	---	---	---	3.5	3.5	3.5
19	3.5	3.4	3.5	3.5	3.3	3.4	---	---	---	3.6	3.5	3.5
20	3.5	3.4	3.4	3.6	3.5	3.5	3.9	3.6	3.7	3.7	3.6	3.6
21	3.5	3.4	3.4	3.7	3.4	3.5	3.8	3.4	3.5	3.7	3.6	3.6
22	3.5	3.4	3.4	3.8	3.6	3.7	3.5	3.4	3.4	3.6	3.6	3.6
23	3.5	3.4	3.4	3.8	3.5	3.6	3.5	3.4	3.5	3.7	3.6	3.6
24	3.5	3.3	3.4	4.1	3.7	3.9	3.6	3.5	3.5	3.7	3.6	3.7
25	---	---	---	4.7	4.2	4.5	3.6	3.5	3.5	3.7	3.6	3.7
26	---	---	---	---	---	---	3.6	3.6	3.6	3.8	3.7	3.7
27	---	---	---	---	---	---	3.6	3.6	3.6	4.3	3.8	4.2
28	---	---	---	4.3	4.1	4.2	3.6	3.6	3.6	4.3	4.0	4.1
29	---	---	---	4.3	4.2	4.2	3.7	3.6	3.7	4.3	4.0	4.1
30	3.7	3.6	3.7	4.2	4.1	4.1	3.7	3.6	3.7	4.4	3.9	4.2
31	3.6	3.5	3.6	---	---	---	3.6	3.5	3.6	4.2	3.8	4.0
MONTH	3.7	3.3	3.4	4.7	3.3	3.6	4.6	3.4	3.7	4.4	3.4	3.6

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY		FEBRUARY			MARCH			APRIL			MAY	
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.8	3.7	3.8	4.1	4.1	4.1	5.2	4.6	4.8	6.2	5.4	5.5
2	---	---	---	4.1	4.0	4.1	5.2	5.0	5.1	6.2	5.2	5.6
3	---	---	---	4.2	3.9	4.0	5.1	4.9	5.0	5.2	4.9	5.1
4	---	---	---	4.3	3.8	4.0	5.0	4.7	4.8	5.0	4.7	4.9
5	---	---	---	4.0	3.9	3.9	4.8	4.7	4.8	4.8	4.6	4.7
6	4.9	4.6	4.8	4.2	3.8	3.9	4.8	4.7	4.8	4.7	4.5	4.6
7	4.6	4.3	4.5	3.9	3.8	3.8	4.6	4.5	4.6	4.6	4.4	4.5
8	4.3	4.1	4.2	3.9	3.9	3.9	4.5	4.3	4.4	4.4	4.3	4.3
9	4.1	4.0	4.1	4.0	3.9	3.9	4.4	4.2	4.3	4.3	4.1	4.2
10	4.1	3.9	4.0	4.1	3.8	3.9	4.4	4.3	4.4	4.1	4.0	4.1
11	6.5	3.9	5.8	4.0	4.0	4.0	4.9	4.2	4.4	4.8	4.1	4.5
12	5.7	4.5	5.1	4.0	3.9	4.0	5.0	4.6	4.7	5.3	4.9	5.1
13	4.5	4.0	4.2	4.3	4.0	4.1	5.3	5.0	5.1	4.9	4.6	4.8
14	4.1	4.0	4.1	4.3	3.9	4.1	5.5	5.0	5.2	4.7	4.5	4.6
15	4.2	4.0	4.1	4.4	3.8	4.0	5.3	5.2	5.2	4.8	4.3	4.5
16	---	---	---	4.1	3.9	4.0	5.2	5.0	5.1	4.9	4.6	4.7
17	---	---	---	4.3	3.8	3.9	5.1	4.8	4.9	4.6	4.3	4.5
18	---	---	---	4.1	3.8	3.9	4.9	4.6	4.8	4.4	4.2	4.3
19	---	---	---	4.0	3.9	3.9	4.7	4.5	4.6	4.3	4.1	4.2
20	---	---	---	4.0	3.9	3.9	4.5	4.4	4.5	4.1	4.0	4.1
21	---	---	---	4.0	3.9	3.9	4.4	4.3	4.4	4.1	3.9	4.0
22	---	---	---	3.9	3.9	3.9	4.4	4.2	4.2	4.0	3.9	4.0
23	---	---	---	4.0	3.9	3.9	5.1	4.2	4.6	3.9	3.8	3.9
24	---	---	---	4.3	3.7	4.0	5.1	5.0	5.1	3.9	3.7	3.8
25	---	---	---	4.1	3.9	4.0	5.2	4.9	5.1	3.8	3.7	3.8
26	4.2	4.1	4.1	4.1	3.8	4.0	5.0	4.8	4.9	3.9	3.7	3.8
27	4.2	4.0	4.1	4.2	4.0	4.1	4.9	4.7	4.8	3.8	3.7	3.8
28	4.1	4.1	4.1	4.2	4.0	4.1	6.1	4.6	4.8	3.8	3.7	3.7
29	---	---	---	4.1	4.0	4.1	6.6	6.1	6.4	3.8	3.7	3.7
30	---	---	---	4.8	4.1	4.3	6.2	5.6	5.9	3.9	3.7	3.8
31	---	---	---	4.9	4.8	4.8	---	---	---	3.8	3.7	3.7
MONTH	6.5	3.7	4.4	4.9	3.7	4.0	6.6	4.2	4.9	6.2	3.7	4.4

DAY		JUNE			JULY			AUGUST			SEPTEMBER	
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.7	3.6	3.7	---	---	---	3.7	3.6	3.6	3.4	3.4	3.4
2	4.1	3.7	3.9	---	---	---	3.6	3.5	3.6	3.5	3.4	3.4
3	4.3	4.1	4.2	---	---	---	3.5	3.5	3.5	3.5	3.4	3.5
4	---	---	---	---	---	---	3.7	3.5	3.6	3.5	3.5	3.5
5	---	---	---	4.7	4.4	4.6	3.5	3.5	3.5	3.6	3.5	3.6
6	---	---	---	4.8	4.4	4.6	3.5	3.5	3.5	3.6	3.5	3.5
7	---	---	---	4.4	4.0	4.2	3.5	3.5	3.5	3.6	3.5	3.5
8	---	---	---	4.0	3.8	3.9	3.5	3.5	3.5	3.9	3.6	3.7
9	---	---	---	3.8	3.7	3.8	3.5	3.5	3.5	3.9	3.8	3.8
10	---	---	---	3.8	3.7	3.7	3.5	3.5	3.5	3.8	3.7	3.7
11	---	---	---	3.7	3.6	3.7	3.5	3.5	3.5	3.7	3.6	3.6
12	---	---	---	3.6	3.6	3.6	3.5	3.5	3.5	3.6	3.6	3.6
13	---	---	---	3.6	3.6	3.6	3.5	3.5	3.5	3.6	3.5	3.5
14	---	---	---	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.5
15	---	---	---	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
16	---	---	---	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
17	---	---	---	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
18	---	---	---	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
19	---	---	---	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
20	---	---	---	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.4	3.4
21	---	---	---	3.7	3.5	3.6	3.5	3.4	3.4	3.6	3.5	3.5
22	---	---	---	3.7	3.6	3.7	3.4	3.4	3.4	3.5	3.5	3.5
23	---	---	---	3.6	3.6	3.6	3.4	3.4	3.4	3.5	3.4	3.5
24	---	---	---	3.6	3.5	3.6	3.4	3.4	3.4	3.5	3.5	3.5
25	---	---	---	3.7	3.5	3.6	3.4	3.4	3.4	3.5	3.5	3.5
26	---	---	---	3.5	3.5	3.5	3.4	3.4	3.4	3.5	3.5	3.5
27	---	---	---	3.6	3.5	3.6	3.4	3.4	3.4	3.5	3.5	3.5
28	---	---	---	3.6	3.5	3.6	3.4	3.4	3.4	3.5	3.5	3.5
29	---	---	---	4.2	3.6	3.9	3.4	3.4	3.4	3.5	3.5	3.5
30	---	---	---	4.1	3.7	3.9	3.4	3.4	3.4	3.5	3.5	3.5
31	---	---	---	3.8	3.6	3.7	3.4	3.4	3.4	---	---	---
MONTH	4.3	3.6	3.9	4.8	3.5	3.7	3.7	3.4	3.5	3.9	3.4	3.5

01516350 TIOGA RIVER NEAR MANSFIELD PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	14.0	17.0	5.5	4.0	4.5	5.0	2.5	3.5	.5	.5	.5
2	17.5	14.0	15.5	5.0	3.5	4.0	7.0	4.0	5.5	.5	.5	.5
3	18.0	12.5	15.0	7.5	2.5	5.0	4.5	.5	2.0	.5	.5	.5
4	16.0	12.0	14.0	10.5	5.5	7.5	.5	.5	.5	.5	.5	.5
5	13.5	8.5	11.5	8.0	5.0	6.5	1.0	.5	.5	.5	.5	.5
6	14.0	10.0	12.0	6.0	3.0	4.5	---	---	---	.5	.5	.5
7	14.5	11.0	12.5	9.0	4.0	6.5	---	---	---	.5	.5	.5
8	16.0	9.5	12.5	8.5	4.5	7.5	---	---	---	.5	.5	.5
9	16.0	12.0	13.5	6.5	4.0	5.0	---	---	---	.5	.5	.5
10	13.0	8.5	10.5	5.0	2.0	4.0	---	---	---	.5	.5	.5
11	16.0	11.0	13.0	2.0	1.0	1.5	---	---	---	.5	.5	.5
12	13.0	10.5	11.5	2.5	.0	1.0	---	---	---	.5	.5	.5
13	10.5	8.5	9.0	6.5	.0	3.0	---	---	---	.5	.5	.5
14	12.0	6.5	9.0	6.0	4.5	5.0	---	---	---	.5	.5	.5
15	13.5	9.5	11.5	5.0	4.0	4.5	---	---	---	.5	.5	.5
16	14.5	9.5	12.5	5.0	1.5	3.5	---	---	---	1.0	.5	.5
17	17.0	12.5	15.0	1.5	.5	1.0	---	---	---	.5	.5	.5
18	16.5	14.5	15.5	1.0	.5	1.0	---	---	---	.5	.5	.5
19	14.5	12.0	13.5	1.0	.5	1.0	---	---	---	1.0	.5	.5
20	12.5	9.5	10.5	2.5	1.0	1.5	1.0	.5	.5	1.0	.5	.5
21	11.5	8.5	9.5	2.5	.5	1.5	1.0	.5	.5	1.0	.5	.5
22	9.0	6.0	7.5	6.0	2.0	3.5	1.0	.5	.5	.5	.5	.5
23	10.0	5.0	7.5	3.5	.5	2.0	1.0	.5	.5	.5	.5	.5
24	8.5	4.0	6.5	4.0	3.0	3.5	1.0	.5	.5	1.0	.5	.5
25	---	---	---	4.5	2.5	4.0	.5	.5	.5	1.0	.5	.5
26	---	---	---	3.5	.5	2.0	.5	.5	.5	1.0	.5	.5
27	---	---	---	1.5	.5	1.0	1.0	.5	.5	.5	.5	.5
28	---	---	---	2.5	1.5	2.0	1.0	.5	.5	.5	.5	.5
29	---	---	---	3.5	1.5	2.5	1.0	1.0	1.0	.5	.5	.5
30	7.0	4.0	5.0	4.5	1.5	3.0	1.0	.5	.5	.5	.5	.5
31	9.0	3.5	6.0	---	---	---	.5	.5	.5	.5	.5	.5
MONTH	20.0	3.5	11.5	10.5	.0	3.5	7.0	.5	1.0	1.0	.5	.5

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.5	.5	.5	4.0	3.0	3.5	12.5	6.0	10.5	10.5	8.0	9.5
2	.5	.5	.5	4.5	1.5	3.5	13.0	7.0	9.5	14.0	7.5	10.5
3	---	---	---	2.0	.5	1.0	13.5	5.5	9.5	15.0	6.0	10.5
4	---	---	---	2.5	.5	1.5	15.5	9.0	12.0	17.0	7.5	12.5
5	---	---	---	2.5	1.5	2.0	13.0	9.5	11.5	17.0	9.0	13.0
6	.5	.5	.5	2.5	.5	1.5	9.5	5.5	7.5	13.5	8.0	11.0
7	.5	.5	.5	1.5	.5	.5	12.5	3.5	8.0	15.0	6.0	10.0
8	.5	.5	.5	3.0	.5	2.0	14.5	6.0	10.5	16.5	6.5	11.5
9	.5	.5	.5	4.5	2.0	3.0	12.5	9.0	10.5	17.0	8.5	12.0
10	.5	.5	.5	5.0	2.0	3.5	15.0	6.0	10.5	19.0	10.5	14.5
11	1.0	.5	.5	4.5	2.0	3.5	14.0	8.5	11.0	15.5	13.5	14.5
12	.5	.0	.5	7.0	1.0	3.5	12.0	6.5	10.0	13.0	10.0	12.0
13	.5	.0	.5	6.5	2.5	4.5	9.5	7.0	8.0	15.0	8.0	11.5
14	.5	.5	.5	3.0	.5	1.5	8.5	5.5	7.0	18.0	8.5	13.5
15	---	---	---	7.5	.5	3.5	10.5	3.5	6.5	16.5	12.0	14.5
16	---	---	---	4.5	.5	2.5	13.0	3.0	8.0	13.5	10.0	12.0
17	---	---	---	2.0	.5	.5	10.5	7.0	9.0	16.5	8.5	12.0
18	---	---	---	1.0	.0	.5	16.0	9.0	12.0	15.5	8.5	11.5
19	---	---	---	.5	.5	.5	12.5	6.5	9.5	14.5	8.0	11.5
20	---	---	---	.5	.5	.5	11.5	6.0	8.5	18.0	7.5	12.5
21	---	---	---	.5	.5	.5	11.0	3.0	7.0	19.5	9.0	14.0
22	---	---	---	2.0	.5	1.0	14.0	4.5	9.0	20.0	11.0	15.5
23	---	---	---	5.0	1.5	3.0	10.0	8.0	9.0	21.0	11.5	16.0
24	---	---	---	5.5	1.0	3.0	10.0	7.5	8.5	21.0	12.0	16.5
25	---	---	---	7.0	2.5	4.5	12.5	5.5	6.5	22.0	14.5	18.0
26	3.0	2.5	3.0	9.5	1.0	5.5	13.0	5.0	8.0	22.0	16.0	19.0
27	6.0	1.5	3.5	7.0	3.5	5.5	16.5	8.0	12.0	20.0	16.0	18.0
28	4.5	2.0	3.5	11.0	1.5	6.0	12.5	9.0	11.0	20.0	16.0	18.0
29	---	---	---	12.5	4.5	8.5	13.0	10.5	11.5	23.0	16.0	19.0
30	---	---	---	10.0	8.0	9.0	13.5	9.0	11.0	22.0	16.0	18.5
31	---	---	---	12.5	6.5	9.5	---	---	---	23.5	16.5	19.5
MONTH	6.0	.0	1.0	12.5	.0	3.0	16.5	3.0	9.5	23.5	6.0	14.0

BEST DOCUMENT AVAILABLE

BEST DOCUMENT AVAILABLE

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	22.5	13.0	17.5	21.5	17.0	19.5	26.5	18.5	22.5	21.0	19.5	20.5
2	18.0	14.5	16.0	21.0	18.0	19.5	26.5	19.0	22.5	20.5	19.5	20.0
3	17.0	14.0	15.5	21.5	17.0	19.0	25.5	19.5	22.5	19.5	19.0	19.0
4	21.5	14.5	18.0	22.0	17.5	19.5	27.5	20.0	23.5	19.0	18.0	18.5
5	23.5	14.5	19.0	21.5	17.5	19.0	25.5	21.0	23.0	20.0	17.5	18.5
6	24.5	18.0	21.0	25.0	17.0	21.0	26.0	18.5	22.5	22.0	18.0	20.0
7	23.5	15.5	19.5	27.5	18.5	23.0	26.5	18.5	22.5	23.5	19.0	21.0
8	23.5	15.0	19.0	28.5	19.5	24.0	27.5	20.5	24.0	20.5	18.0	19.5
9	24.5	18.5	20.5	28.5	21.5	24.5	26.0	20.5	23.0	20.5	15.0	17.5
10	19.5	16.5	18.0	29.0	21.5	25.0	28.5	20.0	24.0	20.5	13.0	17.0
11	23.0	15.0	19.0	28.5	19.0	24.0	27.0	21.0	24.0	23.0	16.0	19.0
12	24.5	16.0	19.5	28.5	20.5	24.5	26.0	20.5	23.0	24.0	17.5	20.5
13	26.0	17.5	21.5	28.0	21.5	24.5	25.5	18.5	22.0	24.5	16.0	20.0
14	25.5	20.0	22.0	26.0	20.5	23.0	27.0	20.5	23.5	24.0	19.5	21.5
15	22.0	18.0	20.0	26.0	18.5	22.0	24.5	21.5	22.5	21.5	19.0	20.0
16	24.5	17.5	21.0	25.0	17.5	21.5	24.5	20.0	21.5	20.5	16.5	18.5
17	22.0	18.0	19.5	27.0	19.0	23.0	23.5	16.0	19.5	21.5	16.5	19.0
18	24.0	14.5	19.0	27.5	19.5	23.5	25.0	14.5	19.5	18.0	14.5	16.5
19	24.0	16.5	20.5	27.5	20.5	24.0	25.5	16.0	20.5	19.0	15.0	17.0
20	---	---	---	26.0	22.0	24.0	26.0	17.0	21.0	18.5	14.5	16.5
21	---	---	---	23.5	21.5	22.5	25.0	17.0	21.0	15.5	11.5	14.0
22	20.5	16.0	18.0	25.0	19.5	22.0	25.5	19.0	22.0	14.5	12.5	14.0
23	19.0	14.0	16.5	26.0	16.0	20.5	25.5	17.5	21.5	12.5	10.5	11.5
24	20.5	13.0	17.0	23.5	17.0	20.5	22.5	18.0	20.5	16.5	10.0	12.5
25	18.5	15.5	17.0	21.0	18.5	20.0	23.5	18.5	20.5	18.0	10.0	14.0
26	16.5	13.5	14.5	20.5	19.0	20.0	25.0	16.5	20.5	17.5	14.5	16.0
27	20.5	12.0	16.0	27.0	19.0	22.5	24.0	18.5	21.5	19.5	15.0	17.0
28	23.0	12.5	17.5	21.5	19.0	20.0	23.5	20.0	21.5	16.5	13.0	14.5
29	---	---	---	20.0	16.5	18.5	25.0	20.0	22.5	13.5	10.0	12.0
30	---	---	---	25.0	14.0	19.0	24.5	20.0	22.0	12.5	10.0	11.5
31	---	---	---	27.0	17.0	21.5	22.5	20.5	21.5	---	---	---
MONTH	26.0	12.0	18.5	29.0	14.0	22.0	28.5	14.5	22.0	24.5	10.0	17.0

01516500 COREY CREEK NEAR MAINESBURG, PA

LOCATION.--Lat 41°47'27", long 77°00'54", Tioga County, Hydrologic Unit 02050104, on right bank 30 ft (9 m) upstream from township bridge, 500 ft (152 m) upstream from small tributary, 1.1 mi (1.8 km) west of Mainesburg, 3.5 mi (5.6 km) east of Mansfield, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--12.2 mi^2 (31.6 km^2).

PERIOD OF RECORD.--May 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,337.50 ft (407.670 m) National Geodetic Vertical Datum of 1929. Prior to June 28, 1954, nonrecording gage at site 30 ft (9 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 12.5 ft^3/s (0.354 m^3/s), 13.85 in/yr (352 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,580 ft^3/s (158 m^3/s) June 23, 1972, gage height, 10.44 ft (3.182 m), from floodmark, from rating curve extended above 490 ft^3/s (13.9 m^3/s) on basis of slope-area measurements at gage height, 7.88 ft (2.402 m) and at peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft^3/s (7.93 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	Unknown	Unknown		a*5.90	1.798	June 15	0530	377	10.7	4.18	1.274
Feb. 23	1945	508	14.4	4.73	1.442	June 20	1315	317	8.98	3.92	1.195

Minimum daily discharge, 0.22 ft^3/s (0.006 m^3/s) Aug. 23, 24, 25, 26, 27.

a Ice jam

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	1.5	3.2	1.7	1.1	18	9.7	27	1.0	3.6	.88	.42
2	.28	1.5	3.3	1.6	10	16	13	28	2.2	4.5	.75	.56
3	.35	1.5	4.4	1.6	6.2	14	10	19	2.1	4.1	.75	.82
4	.60	1.4	5.3	1.5	4.1	12	9.5	16	7.7	3.9	1.0	.81
5	.48	1.4	4.2	1.5	3.5	10	10	13	4.1	5.9	.88	.78
6	.42	1.3	3.6	1.4	3.1	9.6	9.0	12	3.0	5.8	.63	.74
7	.39	1.4	3.3	1.4	2.8	8.6	7.7	10	2.3	3.5	.63	.71
8	.37	1.7	3.5	1.4	2.6	7.7	7.0	8.1	2.0	2.7	.75	1.8
9	.35	2.0	3.7	1.3	2.4	7.7	8.1	7.0	4.3	2.3	.75	1.3
10	.33	2.1	4.2	1.3	2.3	7.7	8.1	6.0	2.5	2.0	.63	.72
11	.45	1.7	3.7	1.3	150	7.4	10	16	2.2	1.6	.52	.63
12	.42	1.6	3.4	1.3	50	6.8	11	17	1.8	1.4	.63	.62
13	.38	1.6	3.1	1.2	30	6.4	15	13	1.6	1.3	.52	.55
14	.36	1.7	2.9	1.2	21	6.0	18	12	6.2	1.2	.52	.58
15	.34	1.8	2.7	1.2	17	5.4	16	11	98	1.1	.63	.65
16	.33	1.6	2.5	1.2	15	5.2	14	13	21	.98	.88	.67
17	.32	1.5	2.4	1.1	17	5.0	14	10	21	.94	.52	.70
18	.32	1.6	2.3	1.1	20	4.7	13	8.6	8.8	.85	.44	.75
19	.35	2.0	2.6	1.1	28	4.4	11	7.7	5.6	.80	.36	.76
20	.34	1.9	2.5	1.2	98	4.1	10	6.8	64	1.3	.36	.71
21	.50	1.7	2.4	1.3	56	3.8	8.9	5.8	76	2.6	.28	.63
22	.45	1.6	2.3	1.4	34	3.6	8.2	4.6	55	1.7	.28	.67
23	.40	1.8	2.2	1.5	202	3.7	15	3.9	33	1.2	.22	.92
24	.38	3.4	2.1	1.6	123	3.7	18	2.8	20	1.0	.22	.62
25	5.0	4.5	2.1	1.6	51	3.7	14	2.5	15	1.0	.22	.52
26	7.2	3.5	2.0	1.6	33	3.8	11	2.7	11	1.1	.22	.52
27	2.7	3.1	1.9	1.6	24	3.8	9.3	2.2	8.4	1.2	.22	.57
28	2.0	3.3	1.9	1.6	21	3.7	13	1.8	6.2	1.1	.24	.76
29	1.6	3.5	1.8	1.5	---	3.7	54	1.8	4.9	2.6	.29	.59
30	1.5	3.2	1.8	1.4	---	6.7	32	1.5	4.1	1.5	.28	.52
31	1.5	---	1.7	1.2	---	9.4	---	1.3	---	1.0	.30	---
TOTAL	30.70	62.4	89.0	42.9	1028.1	216.3	407.5	292.1	495.0	65.77	15.80	21.60
MEAN	.99	2.08	2.87	1.38	36.7	6.98	13.6	9.42	16.5	2.12	.51	.72
MAX	7.2	4.5	5.3	1.7	202	18	54	28	98	5.9	1.0	1.8
MIN	.28	1.3	1.7	1.1	1.1	3.6	7.0	1.3	1.0	.80	.22	.42
CFSM	.08	.17	.24	.11	3.01	.57	1.12	.77	1.35	.17	.04	.06
IN.	.09	.19	.27	.13	3.13	.66	1.24	.89	1.51	.20	.05	.07

CAL YR 1980 TOTAL 2808.84 MEAN 7.67 MAX 340 MIN .01 CFSM .63 IN 8.56
WTR YR 1981 TOTAL 2767.17 MEAN 7.58 MAX 202 MIN .22 CFSM .62 IN 8.44

01518000 TIOGA RIVER AT TIOGA, PA

LOCATION.--Lat 41°54'30", long 77°07'45", Tioga County, Hydrologic Unit 02050104, on left bank 130 ft (40 m) upstream from highway bridge at Tioga, 0.8 mi (1.3 km) upstream from Crooked Creek and 0.9 mi (1.5 km) downstream from Tioga Lake.

DRAINAGE AREA.--282 mi^2 (730 km^2).

PERIOD OF RECORD.--June 1938 to current year.

REVISIONS.--WSP 871: 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,021.0 ft (311.20 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 9, 1953, at site 20 ft (6 m) upstream at datum 2.11 ft (0.643 m) higher. Sept. 9, 1953 to Aug. 10, 1954, at site 130 ft (40 m) downstream at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Discharges include flow diverted from Crooked Creek into Tioga River since Oct. 1, 1977. Flow regulated by Tioga Dam (01517900) 0.9 mi (1.5 km) upstream beginning Nov. 1979. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years (water years 1939-77), 331 ft^3/s (9.374 m^3/s), 15.89 in/yr (404 mm/yr), prior to inflow diverted from Crooked Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,000 ft^3/s (1,670 m^3/s) June 22, 1972, gage height, 19.70 ft (6.005 m), from floodmark, from rating curve extended above 8,000 ft^3/s (227 m^3/s) on basis of slope-area measurement and contracted-opening measurement at gage height, 15.47 ft (4.715 m) and slope-area measurement of peak flow; no flow Mar. 6, 1979, Aug. 29, 1980, result of shutoff at Tioga Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,390 ft^3/s (153 m^3/s) Feb. 13, gage height, 5.70 ft (1.737 m); minimum daily discharge, 16 ft^3/s (0.45 m^3/s) Jan. 15, 16, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	42	34	30	23	566	183	1070	86	146	60	37
2	20	34	34	30	249	770	186	1620	108	124	50	37
3	19	30	60	30	511	664	202	879	137	327	44	37
4	19	30	128	30	45	389	227	645	302	348	40	37
5	19	30	128	30	55	377	226	439	419	217	40	37
6	19	30	127	30	77	366	227	343	362	227	43	37
7	19	30	127	30	89	326	225	364	168	285	43	37
8	25	30	127	30	90	282	224	325	100	202	140	37
9	27	30	80	30	68	226	215	254	101	70	80	37
10	28	30	55	30	60	238	211	224	99	64	34	37
11	40	30	55	30	2500	262	210	384	100	60	34	37
12	60	30	57	30	4180	272	211	1030	99	56	34	37
13	60	30	60	30	3870	273	214	742	99	48	34	37
14	150	30	60	24	970	274	260	420	121	48	34	37
15	439	30	60	16	599	269	531	474	4060	48	34	37
16	480	30	60	16	529	214	358	623	1660	48	34	37
17	371	30	60	16	829	146	297	502	905	48	53	37
18	177	30	60	16	1380	111	338	346	662	48	43	37
19	163	30	60	16	1970	86	338	262	659	42	39	37
20	70	30	60	16	3760	88	276	262	1290	54	35	37
21	23	30	60	17	4000	88	230	262	2410	98	34	37
22	23	31	60	18	4250	88	230	231	1530	99	34	37
23	23	31	60	17	3740	98	230	187	1030	80	34	37
24	23	31	40	16	3520	105	258	100	698	62	34	37
25	50	32	30	16	4720	105	313	60	451	58	34	37
26	226	32	30	16	3040	99	315	117	399	50	36	37
27	211	32	30	16	1680	108	315	161	283	39	37	37
28	76	33	30	16	1230	116	300	161	186	70	37	37
29	60	33	30	16	---	113	2230	144	165	94	37	37
30	50	34	30	23	---	123	2620	101	166	118	37	37
31	45	---	30	23	---	150	---	86	---	80	37	---
TOTAL	3033	935	1922	704	48034	7392	12200	12818	18855	3358	1339	1110
MEAN	97.8	31.2	62.0	22.7	1716	238	407	413	629	108	43.2	37.0
MAX	480	42	128	30	4720	770	2620	1620	4060	348	140	37
MIN	18	30	30	16	23	86	183	60	86	39	34	37

CAL YR 1980 TOTAL 112666 MEAN 308 MAX 3970 MIN 16
WTR YR 1981 TOTAL 111700 MEAN 306 MAX 4720 MIN 16

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA

LOCATION.--Lat 41°57'09", long 77°06'56", Tioga County, Hydrologic Unit 02050104, on left bank, 3.3 mi (5.3 km) downstream from Crooked Creek and 5.0 mi (8.0 km) downstream from Tioga Lake.

DRAINAGE AREA.--446 mi² (1,160 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.43 ft (301.883 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Discharges are regulated since November 1979 by Tioga Lake (station 01517900) and Hammond Lake (station 01518498) located 5.0 mi (8.0 km) upstream.

AVERAGE DISCHARGE.--5 years, 562 ft³/s (15.92 m³/s), 17.11 in/yr (435 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft³/s (507 m³/s) Feb. 25, 1977, gage height, 16.70 ft (5.090 m), from rating curve extended above 4,000 ft³/s (113 m³/s); minimum, 16 ft³/s (0.45 m³/s) Aug. 26, 27, 28, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1975 reached an approximate stage of 22.12 ft (6.742 m) present datum, from floodmarks, approximate discharge 48,000 ft³/s (1,360 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,950 ft³/s (169 m³/s) Apr. 29, gage height, 12.61 ft (3.844 m); minimum daily, 20 ft³/s (0.57 m³/s) Jan. 25, 26, 27, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	71	49	39	24	624	210	1440	131	182	76	55
2	27	68	52	39	250	819	224	2010	150	149	65	58
3	26	51	81	39	600	724	228	1170	169	297	61	56
4	26	51	151	39	50	403	251	883	345	356	58	58
5	26	52	145	38	52	383	245	606	439	243	58	57
6	26	51	144	36	84	371	240	426	419	240	63	58
7	26	51	134	36	90	321	236	462	224	285	62	78
8	31	51	135	36	92	286	233	455	146	236	155	86
9	32	52	116	36	80	232	230	375	153	131	120	100
10	32	52	75	36	74	241	226	319	147	103	58	92
11	50	52	75	36	2850	264	226	440	146	93	71	91
12	77	52	75	36	4270	278	233	1170	141	85	68	81
13	77	50	73	37	4060	286	261	922	133	64	63	65
14	145	42	73	36	1100	282	297	519	146	73	62	65
15	415	41	74	27	639	279	570	582	3960	73	62	64
16	460	41	74	25	561	241	418	756	1910	73	62	64
17	379	42	74	24	896	168	317	633	1230	71	62	64
18	169	46	74	24	1550	130	355	448	794	66	68	62
19	157	41	74	24	2170	110	348	351	774	63	63	58
20	91	41	73	24	4080	105	294	347	1340	61	53	57
21	37	41	72	25	4170	105	240	342	2500	126	53	58
22	36	41	71	25	4390	105	237	316	1780	135	53	59
23	36	41	70	24	4130	110	252	267	1180	134	52	58
24	36	45	52	21	3830	127	283	193	808	100	52	57
25	68	54	44	20	4790	138	336	124	533	92	52	57
26	243	52	42	20	3310	135	329	154	460	73	53	57
27	263	50	41	20	1800	141	338	198	353	53	56	57
28	116	50	41	20	1440	144	381	198	225	63	56	57
29	114	50	41	20	---	142	2580	188	202	107	56	57
30	109	49	40	25	---	149	3300	150	200	148	55	57
31	89	---	40	26	---	188	---	133	---	113	56	---
TOTAL	3444	1471	2375	913	51432	8031	13918	16577	21138	4088	2004	1943
MEAN	111	49.0	76.6	29.5	1837	259	464	535	705	132	64.6	64.8
MAX	460	71	151	39	4790	819	3300	2010	3960	356	155	100
MIN	25	41	40	20	24	105	210	124	131	53	52	55
MEAN‡	79	51.3	103	33.1	1838	278	621	545	704	132	53.8	60.8
CFSM‡	.18	.12	.23	.07	4.12	.62	1.39	1.22	1.58	.30	.12	.14
IN.‡	.21	.13	.27	.08	4.29	.71	1.55	1.41	1.76	.35	.14	.16

CAL YR 1980 TOTAL 129317 MEAN 353 MAX 4300 MIN 16 MEAN‡ 363 CFSM‡ .81 IN.‡ 11.10
WTR YR 1981 TOTAL 127334 MEAN 349 MAX 4790 MIN 20 MEAN‡ 363 CFSM‡ .81 IN.‡ 11.06

‡Adjusted for change in contents in Tioga and Hammond Lakes.

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1969 to September 1972, September 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
pH: October 1976 to current year.
WATER TEMPERATURES: October 1976 to current year.
DISSOLVED OXYGEN: October 1976 to September 1977.

INSTRUMENTATION.--Water-quality monitor since October 1976.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE (Water years 1977, 1979-1981): Maximum, 460 micromhos Aug. 26, 1979; minimum, 67 micromhos Mar. 8, 1979.
pH: Maximum, 8.0 units May 23-25, 1978; minimum, 5.1 units Sept. 8, 1977; Aug. 26, Sept. 15, 23, 1979.
WATER TEMPERATURES: Maximum, 29.5°C July 21, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 449 micromhos Oct. 14; minimum, 90 micromhos Feb. 22.
pH: Maximum, 7.6 units Nov. 11; minimum, 5.2 units Mar. 9,12.
WATER TEMPERATURES: Maximum, 27.0°C July 9, 10; minimum, 0.0°C Mar. 18.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	375	245	317	329	322	324	331	328	329	316	310	313
2	379	296	349	323	320	322	329	316	325	313	307	309
3	406	303	364	327	320	323	324	288	296	324	312	319
4	389	338	367	323	321	322	347	327	342	333	317	325
5	443	383	411	326	319	322	344	322	332	332	321	325
6	432	390	407	326	324	325	340	327	334	329	320	326
7	422	357	395	325	320	323	333	318	325	327	323	325
8	430	294	370	325	319	321	320	314	318	345	325	335
9	382	277	338	326	317	323	314	288	301	345	335	342
10	437	347	401	325	314	322	299	284	292	344	334	339
11	389	322	361	326	324	325	293	289	291	358	341	350
12	406	359	392	328	324	326	295	290	292	360	348	355
13	447	408	428	329	320	326	291	289	290	360	350	355
14	449	348	409	343	323	332	295	289	292	358	332	346
15	430	383	406	346	342	344	305	289	297	332	297	314
16	400	387	390	351	344	348	290	285	288	298	290	292
17	392	273	388	351	345	349	---	---	---	307	290	298
18	403	384	393	345	332	337	---	---	---	317	307	311
19	401	391	395	348	338	343	---	---	---	316	298	304
20	392	378	384	349	344	347	---	---	---	300	293	297
21	377	354	359	346	342	344	---	---	---	305	294	300
22	358	354	356	348	345	346	---	---	---	322	298	311
23	359	351	357	355	346	353	---	---	---	323	316	318
24	362	352	356	355	340	347	---	---	---	323	312	316
25	363	248	331	342	320	327	318	290	299	328	317	322
26	384	250	339	337	320	328	316	303	306	327	317	322
27	384	340	369	341	335	338	305	299	302	330	312	318
28	342	333	336	339	335	337	309	300	305	324	320	322
29	349	332	340	339	335	337	302	296	298	331	320	325
30	348	335	340	338	328	333	302	295	297	351	331	339
31	350	325	342	---	---	---	318	302	311	367	344	355
MONTH	449	245	371	355	314	333	347	284	307	367	290	323

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	361	343	353	147	132	141	222	214	218	151	145	148
2	358	185	282	152	143	146	216	212	215	147	135	142
3	363	347	356	157	146	150	226	214	218	137	133	135
4	363	344	352	157	146	150	226	217	220	137	133	135
5	357	331	349	163	155	159	224	208	220	137	133	134
6	330	301	310	176	159	170	218	208	214	137	135	136
7	310	299	305	178	171	174	218	212	216	138	133	136
8	308	302	306	178	174	175	218	211	216	141	134	136
9	315	282	305	195	177	187	247	204	220	139	136	137
10	306	208	296	192	184	188	228	221	225	141	138	139
11	293	172	237	196	188	192	226	218	222	143	137	140
12	185	140	154	199	192	196	219	210	215	143	139	141
13	140	110	123	193	188	192	210	204	206	146	142	144
14	140	117	127	197	189	193	207	193	202	147	144	145
15	151	133	139	201	193	197	213	202	206	---	---	---
16	157	144	150	202	191	196	207	196	204	---	---	---
17	168	151	161	207	197	202	201	198	199	---	---	---
18	162	150	156	210	193	203	198	191	196	---	---	---
19	162	139	154	208	170	202	193	188	191	---	---	---
20	140	115	128	212	198	204	192	184	190	---	---	---
21	122	95	100	222	211	216	189	185	187	---	---	---
22	101	90	97	227	218	223	188	183	186	153	148	150
23	111	99	103	230	221	226	187	174	180	153	148	150
24	119	105	113	236	227	232	176	174	175	156	150	152
25	107	97	101	233	226	229	178	175	177	160	155	157
26	112	99	103	241	226	234	181	176	178	162	157	159
27	126	108	121	232	224	227	180	173	178	164	157	160
28	134	119	125	267	223	243	176	154	171	167	163	165
29	---	---	---	229	218	223	163	143	153	167	162	164
30	---	---	---	222	214	217	163	150	157	166	163	165
31	---	---	---	218	185	213	---	---	---	167	161	164
MONTH	363	90	200	267	132	197	247	143	199	167	133	147

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	166	162	164	182	174	179	250	223	239	264	261	263
2	168	158	164	185	180	183	253	244	250	263	250	257
3	169	163	166	186	168	178	247	197	236	252	247	250
4	166	162	164	179	172	176	243	226	236	250	240	243
5	172	165	168	178	171	176	243	234	239	251	239	242
6	178	171	174	179	174	177	242	229	235	269	244	251
7	175	171	173	178	173	175	235	228	231	290	250	268
8	178	173	175	177	173	175	247	221	230	266	245	258
9	180	172	176	179	175	177	237	220	231	243	224	231
10	181	178	180	184	178	180	229	217	223	267	220	234
11	182	178	180	189	183	187	---	---	---	233	213	227
12	184	176	181	191	186	189	---	---	---	247	219	235
13	187	182	184	194	189	191	---	---	---	272	248	264
14	189	182	186	194	191	193	---	---	---	270	251	267
15	183	171	177	196	189	193	231	225	228	271	252	266
16	176	159	168	198	194	196	231	223	227	271	251	268
17	167	150	157	200	196	198	233	226	230	272	246	264
18	162	153	159	205	199	203	235	228	231	265	243	257
19	160	154	157	208	204	206	235	228	233	274	253	267
20	159	154	157	207	198	202	247	229	238	274	251	266
21	158	145	152	207	188	198	270	248	261	274	251	270
22	152	141	147	200	191	195	274	266	271	273	263	267
23	146	139	143	195	191	194	277	268	273	276	263	268
24	152	143	147	190	188	189	274	268	270	283	272	278
25	156	151	154	192	186	190	270	261	266	273	253	269
26	158	151	156	194	186	188	267	259	263	273	253	268
27	167	153	158	210	196	205	268	262	266	286	255	276
28	179	166	172	210	207	209	268	264	266	289	258	272
29	180	175	178	215	206	212	270	263	265	290	270	278
30	182	175	179	210	203	207	267	262	265	284	274	281
31	---	---	---	223	208	218	265	260	263	---	---	---
MONTH	189	139	167	223	168	192	277	197	247	290	213	260

BEST DOCUMENT AVAILABLE

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.9	6.8	6.8	7.5	7.5	7.5	7.2	7.2	7.2	6.6	6.5	6.6
2	6.9	6.8	6.9	7.5	7.5	7.5	7.3	7.2	7.2	6.6	6.6	6.6
3	7.0	6.9	6.9	7.5	7.4	7.4	7.5	7.3	7.4	6.7	6.4	6.5
4	7.0	6.9	7.0	7.5	7.4	7.4	7.4	7.0	7.1	6.5	6.3	6.4
5	7.0	7.0	7.0	7.5	7.4	7.5	7.2	7.0	7.2	6.4	6.3	6.4
6	7.0	6.9	7.0	7.5	7.4	7.5	7.1	7.1	7.1	6.4	6.2	6.3
7	7.0	6.9	6.9	7.5	7.4	7.4	7.1	7.0	7.1	6.4	6.3	6.4
8	7.1	6.9	7.0	7.5	7.4	7.4	7.1	7.1	7.1	6.5	6.2	6.4
9	7.1	7.1	7.1	7.5	7.4	7.5	7.2	7.0	7.1	6.3	6.2	6.2
10	7.2	7.1	7.2	7.5	7.4	7.5	7.3	7.2	7.3	6.3	6.2	6.2
11	7.2	7.1	7.2	7.6	7.5	7.5	7.4	7.3	7.4	6.2	6.1	6.2
12	7.2	7.0	7.1	7.5	7.5	7.5	7.4	7.3	7.3	6.2	6.0	6.1
13	7.1	7.0	7.1	7.5	7.4	7.5	7.3	7.3	7.3	6.3	6.0	6.1
14	7.1	6.7	7.0	7.4	7.3	7.4	7.4	7.3	7.3	6.7	6.3	6.4
15	6.8	6.7	6.7	7.3	7.2	7.3	7.3	7.2	7.2	7.1	6.7	6.9
16	6.9	6.8	6.8	7.3	7.3	7.3	7.2	7.1	7.2	7.2	7.1	7.1
17	7.0	6.8	6.8	7.4	7.3	7.3	---	---	---	7.2	7.1	7.1
18	7.0	7.0	7.0	7.3	7.2	7.3	---	---	---	7.1	7.1	7.1
19	7.0	7.0	7.0	7.2	7.2	7.2	---	---	---	7.1	7.1	7.1
20	7.1	7.0	7.1	7.2	7.2	7.2	---	---	---	7.1	7.1	7.1
21	7.3	7.0	7.2	7.3	7.2	7.2	---	---	---	7.1	7.1	7.1
22	7.4	7.3	7.3	7.3	7.2	7.2	---	---	---	7.2	7.0	7.1
23	7.4	7.3	7.4	7.3	7.2	7.3	---	---	---	7.0	7.0	7.0
24	7.4	7.4	7.4	7.2	7.2	7.2	---	---	---	7.1	7.0	7.1
25	7.5	7.4	7.4	7.3	7.2	7.2	6.9	6.6	6.8	7.1	7.0	7.0
26	7.5	7.2	7.3	7.3	7.2	7.3	6.7	6.6	6.7	7.2	7.0	7.0
27	7.4	7.1	7.1	7.3	7.2	7.2	6.7	6.6	6.6	7.2	7.1	7.2
28	7.5	7.4	7.5	7.2	7.2	7.2	6.6	6.5	6.6	7.1	7.0	7.1
29	7.5	7.4	7.4	7.2	7.2	7.2	6.6	6.6	6.6	7.1	7.1	7.1
30	7.4	7.4	7.4	7.2	7.2	7.2	6.7	6.6	6.6	7.1	7.0	7.1
31	7.5	7.3	7.4	---	---	---	6.7	6.5	6.6	7.0	6.7	6.8
MONTH	7.5	6.7	7.1	7.6	7.2	7.3	7.5	6.5	7.0	7.2	6.0	6.7

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.8	6.7	6.8	5.9	5.6	5.7	6.4	6.1	6.2	6.8	6.7	6.8
2	7.0	5.6	6.7	5.9	5.5	5.7	6.4	6.2	6.3	6.8	6.7	6.7
3	6.1	5.6	5.8	6.2	5.5	5.9	6.4	6.2	6.3	6.8	6.7	6.8
4	6.8	5.9	6.4	6.3	6.0	6.1	6.4	6.2	6.3	6.8	6.7	6.8
5	6.9	6.7	6.8	6.1	5.8	5.9	6.6	6.4	6.5	6.8	6.7	6.8
6	7.0	6.8	7.0	5.9	5.5	5.6	6.6	6.5	6.5	6.9	6.7	6.8
7	7.0	6.9	6.9	5.6	5.5	5.5	6.5	6.3	6.4	6.8	6.7	6.8
8	7.0	7.0	7.0	5.7	5.5	5.6	6.5	6.1	6.3	6.9	6.7	6.8
9	7.3	7.0	7.1	5.7	5.2	5.4	6.3	6.2	6.2	7.1	6.8	6.9
10	7.4	7.1	7.1	5.5	5.3	5.4	6.3	6.1	6.2	7.1	6.8	6.9
11	7.2	6.2	6.6	5.4	5.3	5.4	6.3	6.2	6.3	7.1	6.8	6.9
12	6.7	6.4	6.5	5.5	5.2	5.4	6.3	6.3	6.3	6.8	6.7	6.8
13	6.8	6.6	6.7	5.7	5.5	5.6	6.4	6.3	6.4	7.0	6.8	6.9
14	6.6	6.4	6.4	5.8	5.5	5.7	6.5	6.2	6.4	7.0	6.8	6.9
15	6.5	6.3	6.4	6.1	5.8	5.9	6.2	5.7	6.1	---	---	---
16	6.4	6.2	6.3	6.5	6.1	6.3	6.3	6.0	6.1	---	---	---
17	6.3	5.8	6.1	6.5	6.2	6.3	6.3	6.2	6.3	---	---	---
18	6.3	6.1	6.2	6.5	6.0	6.3	6.4	6.3	6.3	---	---	---
19	6.3	5.9	6.2	6.7	6.3	6.4	6.4	6.3	6.4	---	---	---
20	6.3	5.8	6.1	6.4	6.2	6.3	6.5	6.4	6.4	---	---	---
21	6.3	5.8	6.1	6.2	5.9	6.0	6.5	6.3	6.4	---	---	---
22	6.4	6.2	6.3	6.0	5.9	5.9	6.5	6.3	6.4	7.3	6.9	7.1
23	6.4	6.0	6.2	6.0	5.7	5.8	6.5	6.4	6.5	7.3	6.9	7.0
24	6.0	5.6	5.8	5.8	5.6	5.7	6.6	6.5	6.5	7.2	6.9	7.0
25	6.4	5.9	6.0	5.8	5.7	5.8	6.5	6.4	6.5	7.3	6.9	7.0
26	6.4	6.1	6.3	6.0	5.6	5.7	6.5	6.4	6.4	7.4	6.8	7.0
27	6.2	5.7	6.0	6.0	5.8	5.9	6.6	6.4	6.5	7.2	6.8	7.0
28	6.3	5.9	6.1	6.0	5.4	5.6	6.7	6.6	6.6	7.1	6.7	6.9
29	---	---	---	6.2	6.0	6.1	6.7	6.5	6.7	7.0	6.7	6.8
30	---	---	---	6.4	6.2	6.4	6.8	6.6	6.7	7.1	6.7	6.9
31	---	---	---	6.9	6.2	6.4	---	---	---	7.2	6.8	7.0
MONTH	7.4	5.6	6.4	6.9	5.2	5.9	6.8	5.7	6.4	7.4	6.7	6.9

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.2	6.8	7.0	6.7	6.6	6.6	6.5	6.4	6.5	6.6	6.5	6.5
2	7.1	6.8	7.0	6.7	6.6	6.6	6.4	6.4	6.4	6.5	6.5	6.5
3	7.1	6.7	6.9	6.7	6.5	6.6	6.6	6.5	6.5	6.5	6.4	6.5
4	6.9	6.7	6.8	6.6	6.4	6.5	6.6	6.5	6.5	6.5	6.4	6.5
5	6.8	6.6	6.7	6.6	6.5	6.6	6.7	6.5	6.6	6.5	6.4	6.4
6	6.8	6.5	6.6	6.6	6.5	6.6	6.7	6.6	6.7	6.4	6.4	6.4
7	6.9	6.7	6.8	6.7	6.6	6.6	6.8	6.7	6.7	6.5	6.2	6.3
8	7.0	6.8	6.9	6.8	6.6	6.6	6.7	6.5	6.6	6.5	6.4	6.4
9	7.1	6.8	6.9	6.8	6.7	6.8	6.6	6.4	6.5	6.6	6.5	6.6
10	7.1	6.8	7.0	6.9	6.7	6.8	6.7	6.6	6.6	7.1	6.6	6.8
11	7.1	6.8	6.9	6.9	6.7	6.8	---	---	---	7.2	7.0	7.1
12	7.1	6.8	6.9	6.8	6.7	6.8	---	---	---	7.2	7.0	7.1
13	7.0	6.8	6.9	6.8	6.7	6.8	---	---	---	7.0	6.9	7.0
14	7.0	6.8	6.8	6.9	6.8	6.8	---	---	---	7.1	6.8	6.9
15	6.8	6.6	6.7	6.8	6.8	6.8	6.9	6.8	6.8	7.1	6.9	7.0
16	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.8	6.9	7.0	6.9	7.0
17	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.8	6.9	7.0	6.8	6.9
18	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.8	7.0	6.9	6.9
19	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.7	6.8
20	6.7	6.5	6.6	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.7	6.8
21	6.5	6.4	6.5	6.8	6.7	6.7	6.7	6.6	6.7	6.8	6.7	6.8
22	6.7	6.4	6.6	6.8	6.7	6.8	6.7	6.6	6.6	6.8	6.7	6.8
23	6.6	6.6	6.6	6.8	6.7	6.8	6.7	6.6	6.7	6.8	6.7	6.7
24	6.6	6.6	6.6	6.9	6.8	6.8	6.7	6.6	6.6	6.6	6.5	6.6
25	6.7	6.5	6.6	6.9	6.8	6.8	6.7	6.6	6.6	6.6	6.5	6.6
26	6.7	6.6	6.6	6.9	6.7	6.8	6.7	6.6	6.6	6.8	6.5	6.6
27	6.7	6.6	6.6	6.7	6.6	6.7	6.7	6.5	6.6	6.8	6.6	6.7
28	6.6	6.5	6.6	6.7	6.6	6.7	6.7	6.5	6.6	6.8	6.7	6.7
29	6.6	6.6	6.6	6.6	6.5	6.6	6.6	6.5	6.5	6.7	6.4	6.6
30	6.7	6.6	6.6	6.6	6.5	6.5	6.7	6.5	6.6	6.4	6.3	6.4
31	---	---	---	6.5	6.3	6.4	6.6	6.5	6.6	---	---	---
MONTH	7.2	6.4	6.7	6.9	6.3	6.7	6.9	6.4	6.6	7.2	6.2	6.7

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	16.0	18.0	7.5	5.5	6.0	4.5	3.0	3.5	.5	.5	.5
2	18.5	16.0	17.0	6.0	5.0	5.5	5.5	4.5	5.0	.5	.5	.5
3	17.5	14.5	16.0	7.0	4.5	6.0	5.0	.5	2.0	.5	.5	.5
4	16.5	14.0	15.5	9.0	6.5	8.0	1.5	.5	.5	.5	.5	.5
5	14.0	11.5	13.0	8.5	6.0	7.5	1.0	.5	.5	.5	.5	.5
6	13.5	11.5	12.5	6.0	5.0	5.5	2.0	.5	1.0	.5	.5	.5
7	14.0	12.0	13.0	8.5	5.5	7.0	3.0	1.5	2.5	.5	.5	.5
8	15.5	11.5	13.5	9.0	6.5	8.5	5.5	2.5	3.5	.5	.5	.5
9	15.5	13.0	14.5	6.5	5.5	6.0	5.0	2.5	3.0	.5	.5	.5
10	14.0	11.0	12.5	6.0	4.0	5.5	3.0	2.0	2.5	.5	.5	.5
11	15.0	12.0	13.5	4.0	2.5	3.0	2.5	.5	1.0	.5	.5	.5
12	14.0	12.0	13.0	3.0	2.0	2.5	1.0	.5	.5	.5	.5	.5
13	12.5	11.0	11.5	4.5	2.0	3.5	2.0	.5	1.5	.5	.5	.5
14	14.0	10.0	11.5	5.5	4.5	5.0	1.0	.5	.5	.5	.5	.5
15	14.0	12.0	13.0	5.0	4.0	4.5	.5	.5	.5	.5	.5	.5
16	14.0	12.0	13.0	4.5	2.5	3.5	.5	.5	.5	.5	.5	.5
17	15.0	12.5	14.0	2.5	.5	1.5	---	---	---	.5	.5	.5
18	15.0	14.0	14.5	.5	.5	.5	---	---	---	.5	.5	.5
19	13.5	12.5	13.0	2.0	.5	1.5	---	---	---	.5	.5	.5
20	12.5	11.0	11.5	4.0	2.0	3.0	---	---	---	.5	.5	.5
21	11.5	10.5	11.0	2.5	2.0	2.5	---	---	---	.5	.5	.5
22	10.5	9.0	9.5	4.5	2.5	3.5	---	---	---	.5	.5	.5
23	10.0	7.5	9.0	3.0	2.0	2.5	---	---	---	.5	.5	.5
24	9.0	7.0	8.0	4.0	2.5	3.5	---	---	---	.5	.5	.5
25	8.5	7.5	8.0	4.0	3.0	4.0	.5	.5	.5	.5	.5	.5
26	8.5	7.5	7.5	3.0	1.0	2.0	.5	.5	.5	.5	.5	.5
27	8.5	7.0	8.0	1.5	1.0	1.5	.5	.5	.5	.5	.5	.5
28	8.0	7.0	7.5	2.5	1.5	2.0	.5	.5	.5	.5	.5	.5
29	7.0	6.0	6.5	2.5	2.0	2.5	.5	.5	.5	.5	.5	.5
30	7.5	6.0	6.5	3.0	2.5	2.5	.5	.5	.5	.5	.5	.5
31	8.5	5.0	7.0	---	---	---	.5	.5	.5	.5	.5	.5
MONTH	20.0	5.0	11.5	9.0	.5	4.0	5.5	.5	1.5	.5	.5	.5

BEST DOCUMENT AVAILABLE

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.5	.5	.5	3.0	2.5	3.0	10.0	5.0	7.5	12.0	10.5	11.0
2	.5	.5	.5	3.5	2.0	2.5	11.5	6.0	8.5	12.0	10.5	11.0
3	.5	.5	.5	2.5	1.5	2.0	12.0	5.5	8.5	14.0	10.0	11.5
4	.5	.5	.5	3.5	1.0	2.0	13.0	8.0	10.5	15.0	10.0	12.0
5	.5	.5	.5	2.0	1.5	2.0	11.0	9.0	10.0	15.0	10.5	12.5
6	.5	.5	.5	3.0	1.0	1.5	10.0	7.5	8.5	13.0	10.0	12.0
7	.5	.5	.5	2.5	1.0	1.5	13.0	6.5	9.0	15.0	9.0	11.5
8	1.5	.5	1.0	2.5	1.0	2.0	13.5	8.0	10.0	16.5	10.0	12.5
9	8.0	.5	2.0	3.0	1.5	2.0	11.5	9.0	10.5	17.0	11.0	13.5
10	10.5	.5	1.5	3.5	1.5	2.0	14.5	7.5	10.5	18.5	12.5	15.0
11	3.0	1.0	2.0	3.5	1.5	2.0	13.0	9.5	11.0	16.0	14.0	15.0
12	1.5	.5	1.0	5.0	1.0	2.5	11.0	9.0	10.0	14.0	13.0	13.5
13	1.5	.5	1.0	5.0	2.0	3.0	11.0	8.5	9.5	16.0	13.0	14.0
14	2.5	.5	1.0	3.5	.5	2.0	9.5	8.0	8.5	18.0	12.5	14.5
15	3.0	.5	1.5	6.5	1.0	3.0	11.5	7.5	9.0	---	---	---
16	3.5	1.0	2.0	3.0	1.0	2.5	13.5	7.5	10.0	---	---	---
17	2.5	1.5	2.0	3.0	.5	1.5	11.5	8.5	10.0	---	---	---
18	2.0	1.0	1.5	5.5	.0	1.5	14.0	9.0	11.0	---	---	---
19	2.0	1.0	1.5	10.0	.5	1.5	12.0	8.5	10.0	---	---	---
20	1.5	1.0	1.0	2.0	.5	1.0	12.0	7.5	9.5	---	---	---
21	2.0	1.5	2.0	3.0	.5	1.5	12.5	6.5	9.0	---	---	---
22	2.5	2.0	2.0	3.5	1.0	2.5	14.0	7.0	10.0	20.0	13.0	16.0
23	3.5	2.5	3.0	4.5	1.5	3.0	10.5	9.0	9.5	21.0	13.5	17.0
24	5.0	3.0	4.0	4.0	.5	2.5	10.5	9.0	9.5	21.0	13.5	17.5
25	4.0	3.5	3.5	5.5	1.5	3.5	9.0	8.0	8.5	21.0	16.0	19.0
26	3.5	3.0	3.0	7.5	.5	4.0	12.5	8.0	10.0	22.0	17.0	19.0
27	3.5	2.0	2.5	6.0	3.5	4.0	14.0	9.0	11.0	20.0	16.0	18.0
28	3.5	2.5	3.0	8.5	1.5	5.0	12.5	9.0	10.5	19.5	16.5	17.5
29	---	---	---	9.5	3.0	6.5	11.5	10.5	11.0	20.0	16.5	18.0
30	---	---	---	7.5	5.0	6.5	12.0	10.5	11.0	20.5	16.5	18.5
31	---	---	---	10.5	5.0	7.5	---	---	---	21.5	16.5	18.5
MONTH	10.5	.5	1.5	10.5	.0	3.0	14.5	5.0	9.5	22.0	9.0	15.0

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.0	14.0	18.0	22.5	18.5	20.5	25.5	20.5	23.5	22.0	20.5	21.0
2	20.0	16.0	17.0	22.5	19.0	20.5	25.0	21.0	23.5	21.0	20.5	21.0
3	18.0	16.0	17.0	21.0	19.0	20.0	24.0	21.5	22.5	20.5	20.0	20.0
4	21.0	16.5	18.5	21.5	19.0	20.0	25.0	21.0	22.5	20.0	19.0	19.5
5	21.0	16.0	18.0	22.0	19.5	20.5	24.5	22.5	23.0	19.5	19.0	19.0
6	21.0	17.5	19.5	25.0	19.0	21.5	25.0	20.5	22.5	21.5	19.5	20.0
7	22.0	16.5	19.0	25.5	19.5	22.0	24.5	21.0	23.0	22.5	20.5	21.5
8	23.0	16.0	19.5	26.5	19.5	22.5	24.0	21.5	23.0	22.0	19.5	20.5
9	23.5	18.5	20.5	27.0	20.5	23.5	24.0	21.5	22.5	20.0	17.0	18.5
10	21.0	17.5	19.5	27.0	21.5	24.5	26.5	22.0	23.5	20.0	17.5	19.5
11	23.0	17.0	20.0	26.5	20.0	23.5	---	---	---	22.0	18.0	20.0
12	23.5	17.5	20.5	26.5	21.0	24.0	---	---	---	22.5	19.0	21.0
13	24.0	18.0	21.0	26.0	23.0	24.5	---	---	---	22.5	18.5	20.5
14	24.0	19.5	21.5	25.0	22.0	23.5	---	---	---	22.5	20.5	21.5
15	21.5	20.0	21.0	24.5	20.5	22.5	24.0	22.0	23.0	22.0	20.0	20.5
16	24.5	21.0	22.5	23.5	20.0	22.0	23.0	21.0	22.0	20.0	18.0	19.0
17	23.0	20.5	21.5	25.0	20.0	23.0	22.0	19.0	20.5	20.5	18.0	19.0
18	24.0	20.0	21.5	24.5	21.0	23.0	23.0	18.0	20.5	19.5	16.5	18.0
19	24.0	21.0	22.0	25.5	22.5	24.0	24.0	19.5	22.0	19.0	17.0	18.0
20	22.0	20.5	21.5	25.0	23.0	24.0	24.0	21.0	22.5	18.0	16.0	17.0
21	22.0	20.5	21.0	23.5	21.5	22.5	24.0	20.5	22.0	17.0	15.0	16.0
22	22.0	19.5	21.0	24.0	20.0	22.0	24.5	21.5	23.0	16.0	15.0	15.5
23	21.0	19.0	20.0	25.5	18.5	22.0	24.0	20.5	22.5	15.0	13.5	14.0
24	22.0	19.0	20.0	23.0	19.0	21.0	23.0	21.0	22.0	16.0	12.5	14.0
25	21.0	19.0	20.0	22.0	20.0	20.5	23.0	20.0	21.5	17.5	13.5	15.5
26	20.0	18.0	19.0	21.0	20.5	21.0	24.0	19.0	21.5	17.5	16.5	17.5
27	23.0	17.5	20.0	24.5	20.5	22.0	23.0	21.0	21.5	18.5	16.5	17.5
28	24.5	16.5	20.0	23.0	20.0	21.0	22.5	21.0	22.0	17.5	14.5	16.0
29	24.5	17.0	20.5	20.5	19.5	20.0	24.0	20.5	22.0	14.5	12.0	13.0
30	25.0	19.0	21.5	25.5	17.5	21.0	23.5	21.5	22.5	13.5	12.0	13.0
31	---	---	---	26.0	18.5	22.5	23.0	21.5	22.0	---	---	---
MONTH	25.0	14.0	20.0	27.0	17.5	22.0	26.5	18.0	22.5	22.5	12.0	18.0

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA

LOCATION.--Lat 41°59'48", long 77°08'25", Tioga County, Hydrologic Unit 02050104, on left bank 1.4 mi (2.3 km) upstream from mouth, and 0.8 mi (1.3 km) upstream from steel-truss highway bridge on U.S. Route 15 in Lawrenceville, Pa. and 0.5 mi (0.80 km) downstream from Cowanesque Lake.

DRAINAGE AREA.--298 mi^2 (777 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1951 to current year.

REVISED RECORDS.--WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 983.96 ft (299.911 m) National Geodetic Vertical Datum of 1929. Prior to July 1976 at site 1.1 mi (1.8 km) upstream, at datum 14.07 ft (4.289 m) higher.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Discharges regulated since December 1979 by Cowanesque Lake (station 01519995) 0.5 mi (0.80 km) upstream.

AVERAGE DISCHARGE.--30 years, 291 ft^3/s (8.241 m^3/s), 13.31 in/yr (338 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,700 ft^3/s (1,240 m^3/s) Sept. 26, 1975, gage height, 18.13 ft (5.526 m) site and datum then in use, from floodmark, from rating curve extended above 6,000 ft^3/s (170 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge before construction of Cowanesque Dam, 0.8 ft^3/s (0.023 m^3/s). Aug. 31, Sept. 1, 27, 1964; no flow Aug. 22, 1978, during dam construction.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,890 ft^3/s (110 m^3/s) Feb. 21, gage height, 10.72 ft (3.267 m); minimum daily, 4.7 ft^3/s (0.133 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	14	103	52	29	570	62	917	93	25	46	18
2	4.8	21	127	45	122	465	66	1110	69	30	31	31
3	4.9	21	405	40	70	302	69	836	72	187	23	47
4	5.0	24	313	32	43	217	71	486	411	220	33	54
5	5.5	30	168	25	40	271	74	462	209	24	37	47
6	6.4	30	136	20	37	230	76	360	117	26	36	47
7	6.6	27	152	33	33	177	131	341	82	60	36	70
8	7.7	25	198	44	27	171	151	297	69	68	486	187
9	7.3	21	218	22	27	178	115	224	60	49	178	324
10	6.9	18	215	24	26	172	125	208	90	41	66	128
11	7.2	18	162	20	1990	166	125	167	105	34	33	62
12	7.6	20	103	15	2810	160	132	744	66	35	146	41
13	7.6	27	112	12	1030	168	232	894	44	35	94	50
14	8.2	31	124	10	340	186	410	529	36	22	72	50
15	9.2	31	48	10	314	133	497	2430	1060	14	58	312
16	10	31	47	10	300	137	453	2760	291	15	43	483
17	10	31	93	10	987	132	387	1500	488	16	46	443
18	10	31	80	10	1500	62	377	740	250	14	44	408
19	10	30	70	9.3	1230	77	345	522	130	14	31	390
20	10	31	60	12	1580	93	267	445	90	16	22	372
21	10	31	48	16	2580	81	226	343	110	48	21	352
22	11	31	40	18	3490	77	186	273	220	99	21	331
23	11	31	35	18	2140	75	187	214	90	60	19	306
24	11	33	42	18	2670	70	430	178	80	57	16	246
35	19	207	42	20	2590	71	504	161	70	30	16	75
26	34	237	42	21	1510	72	398	92	60	21	16	19
27	123	147	42	22	650	73	261	97	60	17	18	19
28	100	101	42	26	584	75	257	125	70	14	18	19
29	42	88	31	32	---	77	1420	125	60	19	18	18
30	92	99	35	40	---	70	1600	124	40	53	18	16
31	40	---	45	35	---	58	---	117	---	52	18	---
TOTAL	642.6	1517	3378	721.3	28749	4886	9634	17821	4692	1415	1762	4965
MEAN	20.7	50.6	109	23.3	1027	158	321	575	156	45.6	56.8	166
MAX	123	237	405	52	3490	570	1600	2760	1060	220	486	483
MIN	4.7	14	31	9.3	26	58	62	92	36	14	16	16
MEAN‡	40.5	52.6	110	22.7	1027	176	401	578	155	45.6	55.5	66.3
CFSM‡	.14	.18	.37	.08	3.45	.59	1.35	1.94	.52	.15	.19	.22
IN.‡	.16	.20	.43	.09	3.59	.68	1.51	2.24	.58	.17	.22	.25

CAL YR 1980 TOTAL 72873.2 MEAN 199 MAX 3040 MIN 3.4 MEAN‡ 200 CFSM‡ .67 IN.‡ 9.17
WTR YR 1981 TOTAL 80182.9 MEAN 220 MAX 3490 MIN 4.7 MEAN‡ 222 CFSM‡ .74 IN.‡ 10.12

‡Adjusted for change in contents in Cowanesque Lake.

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1972 to September 1975, November 1976 to current year.

INSTRUMENTATION.--Temperature recorder May 1972 to September 1975, November 1976 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.0°C July 14, 15, 1979; minimum, 0.0°C on many days during winter periods. (Water Year 1979).

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	6.0	5.0	5.5	3.0	2.0	2.5	1.5	.5	1.0
2	---	---	---	6.0	4.5	5.0	3.5	2.5	3.0	1.5	.0	1.0
3	---	---	---	7.5	4.0	5.5	2.5	2.0	2.0	1.5	.0	.5
4	---	---	---	9.0	5.5	7.0	2.0	1.0	1.5	.5	.0	.0
5	---	---	---	7.0	5.5	6.5	2.0	1.0	1.0	1.5	.0	.5
6	---	---	---	7.0	5.0	6.0	2.0	1.0	1.5	1.5	.5	.5
7	---	---	---	8.5	5.0	6.5	2.0	1.5	1.5	2.0	.0	.5
8	---	---	---	7.5	5.5	7.0	2.0	1.5	1.5	1.0	.0	.5
9	---	---	---	7.5	5.5	6.5	2.0	1.0	1.5	1.5	.0	.5
10	---	---	---	8.0	4.0	5.5	3.0	2.0	2.5	1.5	.0	.5
11	---	---	---	5.0	3.5	4.0	2.5	2.0	2.0	1.0	.0	.0
12	---	---	---	5.0	2.5	3.5	2.0	2.0	2.0	1.0	.0	.0
13	---	---	---	5.5	2.5	3.5	2.0	1.5	2.0	1.5	.0	.5
14	---	---	---	4.5	3.5	4.0	2.0	1.0	1.5	1.5	.0	.5
15	---	---	---	5.0	3.5	4.0	2.0	1.0	1.0	2.0	.5	1.5
16	---	---	---	5.5	2.5	3.5	2.0	1.0	1.5	2.5	1.0	1.5
17	---	---	---	3.0	1.0	2.0	2.0	.5	1.0	2.0	.0	.5
18	---	---	---	3.5	2.0	2.5	1.5	1.0	1.0	1.0	.0	.5
19	---	---	---	5.0	2.5	3.0	1.0	.0	.5	4.0	.5	2.0
20	---	---	---	5.0	2.5	3.5	1.5	.0	.5	4.0	.5	2.0
21	---	---	---	4.0	2.5	3.0	1.5	.0	.5	4.0	1.0	2.0
22	---	---	---	5.5	2.5	3.5	1.0	.0	.5	2.0	1.5	2.0
23	---	---	---	4.0	2.5	3.0	1.5	.5	1.0	2.5	2.0	2.0
24	10.0	6.0	7.5	4.0	3.5	3.5	1.5	.0	1.0	3.0	1.5	2.0
25	8.0	7.0	7.5	4.0	3.0	3.5	1.0	.0	.0	4.0	1.0	2.5
26	7.0	6.0	6.5	3.5	2.5	2.5	.5	.0	.0	4.0	2.0	2.5
27	7.0	5.5	6.0	2.5	2.0	2.5	1.5	.0	.5	2.5	2.0	2.0
28	6.5	5.5	6.0	2.5	2.0	2.0	1.5	.0	.5	3.5	1.5	2.0
29	6.0	5.5	5.5	2.0	2.0	2.0	2.0	1.0	1.5	2.5	.5	1.5
30	6.5	5.5	5.5	2.5	2.0	2.0	2.0	.0	1.0	2.5	.5	1.0
31	9.0	5.0	6.5	---	---	---	2.0	.0	.5	3.5	.5	1.5
MONTH	10.0	5.0	6.5	9.0	1.0	4.0	3.5	.0	1.0	4.0	.0	1.0

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	.5	1.5	3.0	2.5	2.5				---	---	---
2	2.0	.5	1.5	3.0	2.0	2.5				---	---	---
3	1.0	.0	.5	2.0	1.0	2.0				---	---	---
4	1.5	.0	.5	1.5	.5	1.0				---	---	---
5	2.0	.0	.5	1.0	1.0	1.0				---	---	---
6	2.0	.5	1.0	1.5	.5	1.0				---	---	---
7	2.5	.5	1.0	2.0	1.0	1.5				---	---	---
8	2.0	.0	1.0	2.0	1.5	1.5				---	---	---
9	2.0	.0	.5	2.0	1.5	1.5				---	---	---
10	2.0	.0	1.0	2.5	2.0	2.0				---	---	---
11	1.5	.0	.5	3.0	2.0	2.5				---	---	---
12	.0	.0	.0	4.0	2.5	3.0				---	---	---
13	.5	.0	.0	4.0	2.5	3.0				---	---	---
14	1.0	.0	.5	3.0	2.0	2.5				---	---	---
15	1.0	.0	.5	4.0	2.0	3.0				---	---	---
16	1.5	.0	.5	3.5	2.0	3.0				---	---	---
17	.5	.0	.5	3.0	1.0	2.0				---	---	---
18	.5	.0	.0	2.0	.5	1.0				---	---	---
19	.5	.0	.5	2.0	1.0	1.5				---	---	---
20	1.0	.0	.5	2.5	1.5	2.0				---	---	---
21	2.0	1.0	1.5	2.5	1.0	2.0				---	---	---
22	2.5	2.0	2.0	3.0	1.5	2.0				---	---	---
23	4.0	2.5	3.0	3.5	1.5	2.0				16.0	13.0	14.0
24	4.0	3.0	3.5	3.0	1.5	2.0				16.0	13.5	14.5
25	3.5	2.5	3.0	4.0	2.0	2.5				17.5	14.0	15.5
26	2.5	2.0	2.0	5.5	2.0	3.5				17.5	15.0	16.0
27	2.5	1.5	2.0	5.0	3.5	4.0				17.0	15.0	16.0
28	2.5	2.0	2.5	6.5	3.5	5.0				16.5	15.0	16.0
29	---	---	---	8.5	5.0	6.5				17.5	15.5	16.0
30	---	---	---	8.5	7.0	7.5				17.5	16.0	16.5
31	---	---	---	---	---	---				19.5	16.0	17.5
MONTH	4.0	.0	1.0	8.5	.5	2.5				19.5	13.0	16.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	16.0	17.0	25.0	21.5	23.0	25.0	20.5	22.0	22.0	21.0	21.5
2	16.5	15.5	16.0	24.0	21.0	22.0	25.0	20.5	22.5	21.5	20.5	21.0
3	17.0	15.5	16.0	22.0	21.0	21.5	23.5	20.5	21.5	21.0	20.5	20.5
4	18.5	16.0	17.0	24.0	21.5	22.0	24.5	20.5	22.0	20.5	20.0	20.5
5	19.5	16.5	18.0	24.5	21.0	21.5	25.0	21.5	23.0	21.0	16.0	20.0
6	20.5	16.0	18.5	26.5	20.5	22.5	25.0	21.5	23.0	21.5	20.0	20.5
7	20.5	17.0	18.5	25.5	21.0	23.0	25.5	21.5	23.0	22.0	20.5	21.0
8	20.5	17.0	18.5	25.5	20.5	23.5	23.5	21.0	23.0	21.0	20.5	21.0
9	21.5	17.5	19.0	27.0	20.5	24.5	25.5	23.5	24.0	21.5	19.5	20.5
10	19.5	17.5	18.0	27.0	22.5	24.5	26.0	23.0	24.5	20.5	19.0	20.0
11	20.5	17.5	18.5	28.0	22.0	24.5	25.0	22.5	24.0	21.5	18.5	19.5
12	21.5	17.0	19.0	27.0	21.5	23.5	24.5	22.5	23.5	21.5	18.0	19.5
13	21.5	17.5	19.0	25.5	22.0	23.5	25.5	22.0	24.0	22.0	18.0	19.5
14	20.5	16.5	18.5	27.5	21.5	24.0	24.5	23.0	24.0	21.5	18.5	20.0
15	21.5	17.5	20.5	28.0	21.5	24.5	24.0	23.0	23.5	21.0	18.5	20.0
16	23.5	21.0	22.0	27.5	21.0	24.0	24.5	22.0	23.5	21.0	20.0	20.5
17	23.0	21.5	22.0	27.5	21.5	24.5	24.5	21.0	22.5	21.0	20.0	20.5
18	24.0	21.5	22.5	29.0	21.0	24.5	25.0	21.0	22.5	20.5	19.5	20.0
19	24.0	21.0	22.5	27.5	22.5	24.5	26.0	20.0	22.5	20.5	19.0	19.5
20	22.5	21.5	22.0	27.0	23.0	24.5	25.5	19.5	22.0	19.5	18.0	19.0
21	24.0	21.0	22.0	24.0	22.0	23.0	26.0	19.0	22.0	18.5	17.0	18.0
22	24.0	22.0	23.0	24.0	21.0	22.5	25.5	20.0	22.5	17.5	17.0	17.0
23	23.5	21.0	22.0	24.5	20.5	22.0	26.5	19.5	22.5	16.5	15.5	16.0
24	23.5	21.0	22.0	23.0	21.0	21.5	24.5	19.5	22.0	16.0	14.5	15.5
25	23.0	21.0	22.0	22.0	21.0	21.5	24.5	20.0	22.0	18.0	14.5	15.5
26	22.5	21.0	21.5	21.5	20.5	21.0	26.5	18.5	22.0	17.0	14.0	15.5
27	24.0	20.0	21.5	26.0	21.0	22.5	24.5	19.5	22.0	17.5	14.5	16.0
28	24.0	20.0	21.5	21.0	19.0	20.0	23.0	20.5	21.5	17.0	14.0	15.0
29	24.5	20.0	22.0	21.0	19.5	20.0	25.5	20.0	22.5	16.0	13.0	14.5
30	26.0	21.0	23.0	24.0	19.0	21.0	24.0	21.0	22.0	15.0	12.0	13.5
31	---	---	---	24.5	20.0	21.5	22.5	21.0	21.5	---	---	---
MONTH	26.0	15.5	20.0	29.0	19.0	23.0	26.5	18.5	22.5	22.0	12.0	18.5

BEST DOCUMENT AVAILABLE

LAKES IN CHEMUNG RIVER BASIN

01517900 TIOGA LAKE.--Lat 42°53'57", long 77°08'21", Tioga County, Hydrologic Unit 2050104, at Tioga Dam on Tioga River, 0.75 mi (1.2 km) south of Tioga and 1.7 mi (2.7 km) upstream from Crooked Creek. DRAINAGE AREA, 280 mi^2 (725 km^2). PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir is formed by rolled earth and rockfill dam. Flood flows are routed to Hammond Lake through a connecting channel with weir at elevation 1,101.0 ft (335.6 m) and to Hammond Dam spillway with crest at elevation 1,131.0 ft (344.7 m). Storage began in November 1979. Capacity at elevation 1,131.0 ft (344.7 m) is 62,000 acre-ft (76.4 hm^3). Recreation lake elevation is 1,081.0 ft (329.5 m), capacity 9,500 acre-ft (11.7 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two service gates and low-flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 10,840 acre-ft (13.4 hm^3) June 20, 1981 elevation, 1,083.71 ft (330.315 m); minimum 2,210 acre-ft (2.72 hm^3) Oct. 25, 1980, elevation, 1,060.05 ft (323.103 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 10,840 acre-ft (13.4 hm^3) June 20, elevation, 1083.71 ft (330.315 m) minimum 2,210 acre ft (2.72 hm^3) Oct. 25, elevation, 1,060.05 ft (323.103 m).

01518498 HAMMOND LAKE.--Lat 42°53'56", long 77°08'52", Tioga County, Hydrologic Unit 2050104, at Hammond Dam on Crooked Creek, 3 mi (4.8 km) upstream from mouth and 0.8 mi (1.3 km) southwest of Tioga. DRAINAGE AREA, 122 mi^2 (316 km^2). PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir is formed by rolled earth and rockfill dam with concrete chute spillway with uncontrolled weir at elevation 1,131.0 ft (344.7 m). Storage began in November 1979. Capacity at elevation 1,131.0 ft (344.7 m) is 63,000 acre-ft (77.7 hm^3). Recreation lake elevation is 1,086.0 ft (331.01 m), capacity 8,850 acre-ft (10.9 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two gates through a connecting channel that discharges into Tioga Lake, and a low-flow outlet to Crooked Creek. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 10,090 acre-ft (12.4 hm^3) June 15, 1981 elevation, 1,087.85 ft (331.577 m); minimum 2,430 acre-ft (3.00 hm^3) Oct. 24, 1980, elevation, 1,074.00 ft (327.355 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 10,090 acre-ft (12.4 hm^3) June 15, elevation, 1,087.85 ft (331.577 m); minimum 2,430 acre-ft (3.00 hm^3) Oct. 24, elevation, 1,074.00 ft (327.355 m).

01519995 COWANESQUE LAKE.--Lat 41°59'05", long 77°09'05", Tioga County, Hydrologic Unit 2050104, at Cowanesque Dam on Cowanesque River, 1.8 mi (2.9 km) southwest of Lawrenceville, and 2.5 mi (4.0 km) upstream from mouth. DRAINAGE AREA, 298 mi^2 (772 km^2). PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir is formed by rolled earth and rockfill dam with concrete chute spillway with uncontrolled weir at elevation 1,117.0 ft ((340.5 m). Storage began in December 1979. Capacity at elevation 1,117.0 ft (340.5 m) is 89,112 acre-ft (109.9 hm^3). Recreation lake elevation is 1,045.0 ft (318.52 m), capacity 7,329 acre-ft (9.04 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two service gates and low-flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 10,550 acre-ft (13.0 hm^3) May 15, 1981 elevation, 1,052.03 ft (320.659 m); minimum 65 acre-ft (80,100 m^3) June 23, 1980, elevation, 1,011.5 ft (308.31 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 10,550 acre-ft (13.0 hm^3) May 15, elevation, 1,052.03 ft (320.659 m); minimum 138 acre-ft (0.170 hm^3) Oct. 1, elevation 1,013.50 ft (308.915 m).

Lakes in Chemung River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01517900 Tioga Lake			01518498 Hammond Lake		
Sept. 30...........	1069.42	4910	--	1075.03	2810	--
Oct. 31...........	1063.42	3110	-29.3	1074.60	2650	- 2.6
Nov. 30...........	1063.13	3040	- 1.2	1075.14	2860	+ 3.5
Dec. 31...........	1068.43	4590	+25.2	1075.32	2940	+ 1.3
CAL YR 1980.....	--	--	+ 6.3	--	--	+ 4.0
Jan. 31...........	1070.46	5260	+10.9	1074160	2490	- 7.3
Feb. 28...........	1069.50	4940	- 5.8	1075.20	2890	+ 7 2
Mar. 31...........	1071.85	5740	+13.0	1076.03	3240	+ 5.7
Apr. 30...........	1080.76	9390	+61.3	1086.15	8940	+95.8
May 31...........	1081.51	9750	+ 5.8	1086.61	9220	+ 4.6
June 30...........	1081.54	9760	+ 0.2	1086.51	9160	- 1.0
July 31...........	1081.50	9740	- 0.3	1086.54	9180	+ 0.3
Aug. 31...........	1080.84	9430	- 5.0	1085.96	8820	- 5.8
Sept. 30...........	1080.84	9430	0.0	1085.64	8580	- 4.0
WTR YR 1981.....	--	--	+ 6.2	--	--	+ 8.0
	01519995 Cowanesque Lake					
Sept. 30...........	1013.50	138	--			
Oct. 31...........	1024.50	1360	+19.8			
Nov. 30...........	1025.16	1480	+ 2.0			
Dec. 31...........	1025.38	1520	+ 0.6			
CAL YR 1980.....	--	--	+ 1.4			
Jan. 31...........	1025.14	1480	- 0.6			
Feb. 28...........	1025.12	1470	- 0.2			
Mar. 31...........	1030.29	2560	+17.7			
Apr. 30...........	1045.03	7340	+80.3			
May 31...........	1045.47	7530	+ 3.1			
June 30...........	1045.38	7490	- 0.7			
July 31...........	1045.38	7490	0			
Aug. 31...........	1045.19	7410	- 1.3			
Sept. 30...........	1025.17	1480	-99.7			
WTR YR 1981.....	--	--	+ 1.8			

01531500 SUSQUEHANNA RIVER AT TOWANDA, PA

LOCATION.--Lat 41°45'55", long 76°26'28", Bradford County, Hydrologic Unit 02050106, on right bank under Bridge Street bridge at Towanda, 1.8 mi (2.9 km) upstream from Towanda Creek.

DRAINAGE AREA.--7,797 mi^2 (20,194 km^2).

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage-height records collected at same site since October 1892 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1922, 1929.

GAGE.--Water-stage recorder. Datum of gage is 694.38 ft (211.647 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 18, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow slightly regulated by 7 flood-control reservoirs, which have a combined capacity of 356,800 acre-ft (440 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--68 years, 10,590 ft^3/s (299.9 m^3/s), 18.47 in/yr (469 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 320,000 ft^3/s (9,060 m^3/s) June 24, 1972, gage height, 35.42 ft (10.189 m) from floodmarks, from rating curve extended above 180,000 ft^3/s (5,100 m^3/s); minimum, 334 ft^3/s (9.46 m^3/s) Sept. 23, 24, 1964; minimum gage height, -0.56 ft (-0.171 m) Aug. 17, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84,600 ft^3/s (2,400 m^3/s) Feb. 21, gage height, 15.26 ft (4.651 m); minimum, 852 ft^3/s (24.1 m^3/s) Oct. 14, gage height, -0.02 ft (-0.006 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	2920	8420	1900	1290	21400	6690	21700	4600	3790	2230	953
2	1150	2600	7980	1850	1500	19300	7420	16600	5290	3710	1880	1010
3	1100	2240	8830	1800	2000	17100	8120	14500	4600	3750	1760	1110
4	1060	2180	11500	1760	3500	14300	8380	11600	4220	3490	1780	1240
5	1050	2050	11300	1720	8000	12300	7830	9690	5220	3810	2460	1510
6	1060	1900	8510	1690	6700	11200	7330	8510	4560	4180	3230	1800
7	1060	1850	7090	1660	5600	10200	7310	7550	4060	4360	2490	2320
8	1050	1800	7000	1630	4700	9450	7270	7070	3680	3570	2240	2990
9	1030	1800	7730	1610	4100	8870	6750	6530	3510	3330	3330	3970
10	1050	1960	10600	1590	3700	8440	6480	5880	3640	2860	2660	4700
11	1050	2110	11200	1570	14500	8350	6550	5580	4140	2480	2150	4230
12	998	2510	9300	1550	51500	8230	6520	7270	4350	2230	2100	3550
13	932	2780	7720	1530	49300	8050	6520	11900	3920	2100	2160	3020
14	868	2800	6900	1510	36300	7950	6790	11400	3470	2010	2110	2480
15	900	2690	5760	1500	27300	7640	8130	10400	5600	1820	2210	2160
16	905	2740	5100	1490	23700	7240	8640	17400	15600	1750	2260	2010
17	1190	2730	4600	1480	23800	7080	7940	19400	9130	1690	2220	2300
18	1300	2820	4200	1470	33900	6530	8060	15400	7930	1570	2020	2410
19	1220	2600	3800	1460	43500	5970	8560	12000	6960	1450	1860	2340
20	1030	2560	3500	1440	56900	5490	8160	9660	6470	1430	1730	2210
21	1070	2550	3200	1420	80700	5150	7420	8150	6160	1570	1550	2080
22	1080	2480	2900	1400	68700	4990	6410	7180	9790	1750	1490	2040
23	959	2500	2600	1390	56100	4860	6140	6490	9780	2070	1380	2020
24	891	2630	2400	1390	70400	4860	7780	5660	8110	2320	1280	3170
25	1050	5340	2200	1380	53700	4980	10800	5030	6540	2220	1230	7550
26	1880	11900	2100	1380	40600	4940	11500	4580	5640	2090	1220	9330
27	4570	12300	2000	1420	30100	4860	10400	4340	5690	1850	1150	7250
28	5690	9310	1900	1450	24500	5010	9130	4100	6090	1690	1090	5820
29	5490	8150	2000	1400	---	5320	11600	3880	5190	1820	1050	5660
30	4130	8580	2100	1360	---	5350	26000	3650	4220	2170	1010	5570
31	3380	---	2000	1320	---	5530	---	3680	---	2590	977	---
TOTAL	51393	113380	176440	47520	826590	260940	256630	286780	178160	77520	58307	98803
MEAN	1658	3779	5692	1533	29520	8417	8554	9251	5939	2501	1881	3293
MAX	5690	12300	11500	1900	80700	21400	26000	21700	15600	4360	3330	9330
MIN	868	1800	1900	1320	1290	4860	6140	3650	3470	1430	977	953
CFSM	.21	.49	.73	.20	3.79	1.08	1.10	1.19	.76	.32	.24	.42
IN.	.25	.54	.84	.23	3.94	1.24	1.22	1.37	.85	.37	.28	.47

CAL YR 1980 TOTAL 2585867 MEAN 7065 MAX 78600 MIN 868 CFSM .91 IN 12.34
WTR YR 1981 TOTAL 2432463 MEAN 6664 MAX 80700 MIN 868 CFSM .86 IN 11.61

01532000 TOWANDA CREEK NEAR MONROETON, PA

LOCATION.--Lat 41°42'25", long 76°29'06", Bradford County, Hydrologic Unit 02050106, 1.0 mi (1.6 km) upstream from South Branch Towanda Creek, and 0.75 mi (1.21 km) southwest of Monroeton.

DRAINAGE AREA.--214 mi^2 (554 km^2).

PERIOD OF RECORD.--February 1914 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1051: 1943-44(M). WSP 1302: 1922(M), 1924, 1925-26(M), 1928, 1929(M), 1930-31. WSP 1432: 1921(M), 1932(M), 1933, 1934-35(M), 1936, 1938(M), 1940. WDR PA-78-2: 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 765.527 ft (233.333 m) National Geodetic Vertical Datum of 1929. Non-recording gage Aug. 27, 1976, to Oct. 20, 1977, at present site and datum. Non-recording gage Sept. 26, 1975, to Aug. 26, 1976, at bridge 0.6 mi (1.0 km) downstream at datum 11.82 ft (3.603 m) lower. Water-stage recorder Oct. 1, 1942, to Sept. 25, 1975, 0.6 mi (1.0 km) downstream at datum 11.82 ft (3.603 m) lower. Prior to Oct. 1, 1942, non-recording gage at present site at datum 8.62 ft (2.627 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--67 years, 288 ft^3/s (8.156 m^3/s), 18.20 in/yr (462 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft^3/s (2,100 m^3/s), June 22, 1972, gage height, 15.3 ft (4.66 m) in gage well, 16.9 ft (5.15 m) outside, from floodmark, site and datum then in use; minimum observed, 0.7 ft^3/s (0.020 m^3/s) Sept. 15, 17, 21, 22, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,300 ft^3/s (122 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1100	ice jam		*12.94	3.944	Feb. 23	2200	*10,800	306	12.88	3.926
Feb. 20	1215	4,600	130	10.77	3.283						

Minimum discharge, 4.2 ft^3/s (0.119 m^3/s), Oct. 1, gage height, 6.10 ft (1.859 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	14	70	28	25	403	168	542	70	84	21	7.7
2	5.2	13	72	27	50	338	232	488	179	84	18	8.5
3	5.9	12	180	26	36	279	210	382	257	97	19	11
4	6.0	11	108	25	31	233	188	314	460	92	24	14
5	5.9	11	75	24	29	221	188	268	283	102	20	15
6	5.5	11	64	23	27	197	206	241	203	107	19	15
7	5.4	10	59	23	26	177	175	221	159	82	16	15
8	5.2	18	55	22	24	164	162	191	128	64	20	18
9	5.0	27	70	22	23	157	158	168	142	52	22	33
10	5.0	29	150	21	110	154	185	151	133	45	18	23
11	5.3	28	100	21	6120	150	178	253	106	39	15	17
12	5.5	22	81	20	2140	148	199	667	87	34	14	14
13	6.1	19	69	20	871	149	256	471	74	32	14	12
14	5.9	18	60	19	608	140	281	364	80	32	14	10
15	6.0	17	53	19	467	125	348	306	1200	26	14	9.9
16	6.1	16	48	19	408	128	281	289	564	23	15	9.7
17	5.9	17	44	18	524	108	264	251	389	21	13	9.5
18	5.9	22	40	18	903	93	252	210	255	20	12	9.5
19	5.6	24	37	18	1230	94	213	184	190	19	10	9.9
20	6.1	23	35	18	3160	90	195	163	581	25	9.7	9.3
21	6.6	17	34	18	2020	86	171	143	342	56	8.8	8.9
22	6.6	21	32	17	1370	85	158	125	517	61	8.4	9.4
23	5.8	18	31	17	3360	88	181	109	468	40	8.2	12
24	6.6	34	30	17	3810	95	281	95	278	29	7.8	12
25	26	168	29	17	1350	93	260	84	234	25	7.7	10
26	131	123	28	17	844	90	213	79	230	25	7.6	9.3
27	55	81	27	22	598	93	192	78	179	27	7.3	8.7
28	33	79	26	19	477	98	185	73	140	27	7.1	8.2
29	24	95	35	18	---	93	606	68	114	30	7.1	7.7
30	19	83	32	17	---	103	769	67	97	35	7.0	7.5
31	16	---	30	16	---	181	---	79	---	27	7.4	---
TOTAL	441.8	1081	1804	626	30641	4653	7355	7124	8139	1462	412.1	364.7
MEAN	14.3	36.0	58.2	20.2	1094	150	245	230	271	47.2	13.3	12.2
MAX	131	168	180	28	6120	403	769	667	1200	107	24	33
MIN	4.7	10	26	16	23	85	158	67	70	19	7.0	7.5
CFSM	.07	.17	.27	.09	5.09	.70	1.14	1.07	1.26	.22	.06	.06
IN.	.08	.19	.31	.11	5.30	.81	1.27	1.23	1.41	.25	.07	.06

CAL YR 1980 TOTAL 62874.6 MEAN 172 MAX 2640 MIN 3.2 CFSM .80 IN 10.88
WTR YR 1981 TOTAL 64103.6 MEAN 176 MAX 6120 MIN 4.7 CFSM .82 IN 11.09

BEST DOCUMENT AVAILABLE

01533400 SUSQUEHANNA RIVER AT MESHOPPEN, PA

LOCATION.--Lat 41°36'26", long 76°03'02", Wyoming County, Hydrologic Unit 02050106, on right bank 2.3 mi (3.7 km), upstream from bridge on Route 87, 0.7 mi (1.1 km) downstream from Meshoppen Creek, 2.4 mi (3.9 km) upstream from Mehoopany Creek, and 0.7 mi (1.1 km) south of Meshoppen.

DRAINAGE AREA.--8,720 mi^2 (22,580 km^2).

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 640 ft (195 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Flow slightly regulated by 7 flood-control reservoirs, which have a combined capacity of 356,800 acre-ft (440 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 12,710 ft^3/s (359.9 m^3/s), 19.79 in/yr (503 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 207,000 ft^3/s (5,860 m^3/s) Mar. 6, 1979, gage height, 35.06 ft (10.686 m); minimum, 780 ft^3/s (22.1 m^3/s) Sept. 17, 1980, gage height, 7.29 ft (2,222 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of 43.51 ft (13.262 m), from floodmark information by local resident, discharge about 331,000 ft^3/s (9,370 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95,600 ft^3/s (2.710 m^3/s) Feb. 21, gage height 25.16 ft (7.669 m); minimum 840 ft^3/s (23.79 m^3/s) Oct. 15, gage height 7.32 ft (2.231 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	966	3370	9400	2600	2200	27400	6500	30200	4160	4250	2560	961
2	1090	2960	8820	2600	3500	24200	8030	21800	5590	3970	2090	967
3	1090	2570	9310	2500	5800	21600	8730	18500	5810	4100	1780	1030
4	1030	2240	11600	2400	5100	18300	9360	15100	5510	3850	1750	1120
5	1010	2210	12500	2400	5600	15300	9090	12200	5560	3970	1880	1230
6	966	2030	10400	2400	6000	13700	8390	10600	5830	3950	3060	1540
7	987	1910	8150	2300	6300	12400	8060	9190	4810	4910	3050	1870
8	987	1950	7680	2300	5500	11400	8090	8320	4310	4160	2470	2730
9	966	1850	7690	2200	6600	10600	7750	7680	4010	3660	2630	3330
10	966	1950	10300	2200	8000	9960	7240	6870	3940	3380	3370	4700
11	1010	2060	12600	2200	72000	9660	7290	6440	4130	2840	2500	4770
12	987	2290	11200	2100	60000	9550	7270	8650	4480	2400	2070	4120
13	945	2650	9140	2100	48000	9330	7380	12400	4490	2130	2150	3560
14	903	3000	7760	2100	38000	9140	7640	14700	3390	2000	2100	3060
15	840	2890	6880	2100	30000	8860	9130	12600	4730	1890	2150	2450
16	861	2850	6220	2100	26000	8330	10200	17300	15000	1730	2210	2150
17	882	2870	5400	2100	30000	8000	9810	22900	13500	1650	2240	2120
18	1120	3060	4800	2000	38000	7510	9290	19600	9490	1570	2130	2430
19	1260	2910	4300	2000	48400	6810	9680	15300	8050	1470	1930	2510
20	1140	2700	3900	2000	60100	6280	9660	12200	7540	1420	1750	2360
21	1010	2700	3500	2000	88700	5830	8880	10000	7170	1580	1620	2210
22	1030	2670	3200	2000	84200	5510	7750	8540	8770	1810	1510	2100
23	1030	2590	2800	2000	67800	5360	6990	7580	12100	1860	1410	2110
24	924	2820	2600	2000	78000	5220	8230	6660	10300	2170	1300	2180
25	987	3930	2500	2000	74000	5320	11400	5790	8100	2320	1200	5010
26	1330	10200	2300	2000	45000	5380	13700	5210	6770	2200	1180	9860
27	2750	14300	2400	2100	36500	5290	12900	4850	6020	2030	1170	8740
28	5280	11600	2300	2100	31400	5250	11400	4570	6470	1770	1120	6790
29	5940	9280	2400	2100	---	5520	13100	4340	6200	1710	1070	5750
30	4890	9190	2500	2100	---	5740	26200	4140	5050	1810	1040	5850
31	3840	---	2600	2100	---	5850	---	4030	---	2390	1000	---
TOTAL	49017	119600	197150	67200	1010700	308600	289140	348260	201880	80950	59490	99608
MEAN	1581	3987	6360	2168	36100	9955	9638	11230	6729	2611	1919	3320
MAX	5940	14300	12600	2600	88700	27400	26200	30200	15000	4910	3370	9860
MIN	840	1850	2300	2000	2200	5220	6500	4030	3940	1420	1000	961
CFSM	.18	.46	.73	.25	4.14	1.14	1.11	1.29	.77	.30	.22	.38
IN.	.21	.51	.84	.29	4.31	1.32	1.23	1.49	.86	.35	.25	.42

CAL YR 1980 TOTAL 2988825 MEAN 8166 MAX 80000 MIN 800 CFSM .94 IN 12.75
WTR YR 1981 TOTAL 2831595 MEAN 7758 MAX 88700 MIN 840 CFSM .89 IN 12.08

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA

LOCATION.--Lat 41°33'29", long 75°53'42", Wyoming County, Hydrologic Unit 02050106, on left bank 300 ft (91 m) upstream from bridge on U.S. Highway 6 at Dixon, 3 mi (4.8 km) northeast of Tunkhannock, and 4 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--383 mi^2 (992 km^2).

PERIOD OF RECORD.--February 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1965, published as "at Dixon".

REVISED RECORDS.--WSP 756: Drainage area. WSP 1051: 1921(M), 1932, 1934-35(M), 1936, 1938(M), 1939-40, 1942-44, 1945(M), WSP 1302: 1922, 1923(M), 1924-25, 1927-28. WSP 1432: 1919(M), 1920, 1933, 1934(P).

GAGE.--Water-stage recorder. Datum of gage is 610.50 ft (186.080 m) National Geodetic Vertical Datum of 1929, Pennsylvania Department of Transportion benchmark. Prior to Aug. 10, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--67 years, 542 ft^3/s (15.3 m^3/s), 19.22 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,600 ft^3/s (952 m^3/s) Mar. 10, 1964, gage height, 14.26 ft (4.346 m), from rating curve extended above 14,000 ft^3/s (395 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 6.2 ft^3/s (0.18 m^3/s) Sept. 24, 1964; minimum gage height, 0.73 ft (0.223 m) Aug. 12, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,800 ft^3/s (646 m^3/s) Feb. 11, gage height 12.44 ft (3.792 m); minimum, 19 ft^3/s (0.54 m^3/s) Oct. 1; minimum gage height, 0.87 ft (0.265 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	29	192	74	48	959	202	1130	256	112	69	36
2	24	28	192	73	100	822	320	999	310	123	61	38
3	30	27	355	71	250	694	296	807	360	143	60	42
4	26	28	243	70	200	563	251	667	563	123	91	44
5	24	27	212	69	210	545	251	551	396	159	81	42
6	22	25	205	68	230	497	301	497	292	355	78	42
7	21	25	188	67	250	445	260	445	238	212	64	40
8	21	34	175	66	230	412	238	375	205	154	66	48
9	21	55	205	65	300	412	230	325	234	123	79	118
10	20	88	282	64	500	412	282	296	247	106	67	95
11	21	99	210	63	9220	401	278	340	195	90	59	70
12	23	79	160	62	6430	380	310	1200	165	79	66	57
13	24	70	130	61	1920	355	345	1060	146	73	64	55
14	22	63	110	60	1380	335	509	785	178	104	56	47
15	21	53	100	59	1150	292	807	1020	1130	88	48	43
16	21	48	93	58	1030	315	588	2680	687	69	59	46
17	21	45	88	57	1110	256	576	1570	423	60	67	48
18	21	63	83	56	1240	223	647	1190	310	53	59	49
19	22	60	80	55	1320	230	509	991	247	52	48	101
20	21	70	78	54	2060	230	445	800	223	78	39	90
21	20	59	76	54	2620	205	385	634	251	296	36	70
22	21	73	74	53	1950	212	340	521	315	315	31	63
23	21	75	73	52	1590	202	451	423	451	185	30	104
24	20	151	72	51	3160	205	1100	350	287	126	34	126
25	27	701	71	51	1870	202	1020	315	247	102	33	121
26	123	445	70	50	1460	192	851	273	247	95	29	91
27	106	273	69	50	1210	188	714	247	209	101	27	79
28	64	230	68	50	1060	185	621	230	175	95	25	78
29	48	260	70	49	---	168	1220	219	146	99	25	70
30	39	226	73	49	---	168	1460	434	130	99	25	59
31	35	---	75	48	---	202	---	325	---	81	28	---
TOTAL	970	3509	4172	1829	44098	10907	15807	21699	9263	3950	1604	2012
MEAN	31.3	117	135	59.0	1575	352	527	700	309	127	51.7	67.1
MAX	123	701	355	74	9220	959	1460	2680	1130	355	91	126
MIN	20	25	68	48	48	168	202	219	130	52	25	36
CFSM	.08	.31	.35	.15	4.11	.92	1.38	1.83	.81	.33	.14	.18
IN.	.09	.34	.41	.18	4.28	1.06	1.54	2.11	.90	.38	.16	.20

CAL YR 1980 TOTAL 104512 MEAN 286 MAX 4360 MIN 18 CFSM .75 IN 10.15
WTR YR 1981 TOTAL 119820 MEAN 328 MAX 9220 MIN 20 CFSM .86 IN 11.64

01534300 LACKAWANNA RIVER NEAR FOREST CITY, PA

LOCATION.--Lat 41°40'47", long 75°28'20", Susquehanna County, Hydrologic Unit 02050107, on left bank 1,600 ft (488 m) upstream from bridge on State Highway 171, 1.3 mi (2.1 km) downstream from new Stillwater Dam, 1.7 mi (2.7 km) below confluence of East and West Branches, and 2.2 mi (3.5 km) north of Forest City.

DRAINAGE AREA.--38.8 mi^2 (100 km^2).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,551.28 ft (472.830 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 11, 1958, non recording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated since December 1959 by Stillwater Lake (station 01534180) 1.3 mi (2.1 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 72.5 ft^3/s (2.053 m^3/s), 25.38 in/yr (645 mm/yr), adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft^3/s (39.4 m^3/s) Jan. 22, 1959, gage height, 6.41 ft (1.954 m), from rating curve extended above 930 ft^3/s (26.3 m^3/s); no flow part of each day July 21, 22, 1978, when gates in dam at Stillwater Lake were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 730 ft^3/s (20.7 m^3/s) Feb. 22, gage height, 4.41 ft (1.344 m); minimum, 0.90 ft^3/s (0.026 m^3/s) Oct. 10, gage height, 1.24 ft (0.378 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	5.8	29	13	8.4	162	42	167	26	15	8.7	3.0
2	1.8	5.0	31	13	32	124	54	138	26	16	7.7	3.8
3	2.2	4.6	76	13	86	100	57	109	28	19	6.9	4.4
4	2.3	4.4	79	12	100	94	50	89	35	19	6.6	4.8
5	2.2	4.4	54	11	79	81	49	74	33	21	6.9	5.0
6	1.8	3.4	42	11	64	69	62	65	28	31	6.9	5.0
7	1.4	4.0	38	11	58	62	57	59	22	31	6.6	5.4
8	1.4	6.3	37	10	52	57	49	50	18	26	6.6	6.3
9	1.2	9.0	47	10	45	52	47	45	19	19	6.6	20
10	1.1	15	56	10	40	50	47	40	19	15	6.6	25
11	1.8	12	52	10	71	50	46	47	18	12	6.6	19
12	2.2	13	41	9.7	212	48	45	160	10	10	6.9	13
13	2.3	9.3	39	9.0	658	48	49	223	12	8.7	7.5	9.5
14	2.0	8.4	34	8.7	598	46	62	210	16	8.0	7.2	6.9
15	1.6	7.5	26	8.6	421	48	96	164	40	7.0	6.9	5.8
16	2.2	6.9	26	8.8	261	43	87	178	49	6.6	7.5	5.4
17	2.3	6.0	27	9.0	186	40	76	171	40	5.9	7.8	5.0
18	2.3	7.7	26	8.9	200	44	81	138	30	5.6	7.5	4.6
19	2.4	6.5	26	8.9	237	37	71	100	22	5.4	6.9	5.0
20	2.3	7.0	23	8.8	231	36	62	79	19	6.0	6.3	4.8
21	2.4	7.6	20	8.7	205	33	53	65	25	19	5.6	4.8
22	2.6	7.8	19	8.4	693	32	47	54	36	31	5.0	5.2
23	2.4	7.8	17	8.4	569	32	50	47	43	26	4.6	8.6
24	2.0	16	18	8.4	167	32	100	42	45	19	4.0	17
25	3.8	69	18	8.4	449	32	126	39	38	15	3.8	19
26	14	70	17	8.5	475	31	116	35	35	12	3.8	18
27	16	50	15	8.6	400	31	94	31	29	12	3.6	15
28	14	40	15	8.9	250	30	81	29	25	11	3.2	13
29	11	36	15	9.0	---	27	124	26	21	12	3.0	9.5
30	8.7	33	15	8.7	---	27	181	26	18	11	2.8	7.8
31	7.0	---	14	8.4	---	36	---	27	---	10	3.0	---
TOTAL	122.1	483.4	992	298.8	6847.4	1634	2161	2727	825	465.2	183.6	279.6
MEAN	3.94	16.1	32.0	9.64	245	52.7	72.0	88.0	27.5	15.0	5.92	9.32
MAX	16	70	79	13	693	162	181	223	49	31	8.7	25
MIN	1.1	3.4	14	8.4	8.4	27	42	26	10	5.4	2.8	3.0
MEAN‡	4.34	17.0	31.8	15.9	243	49.2	74.9	84.4	27.1	14.6	5.62	9.62
CFSM‡	.11	.44	.82	.41	6.26	1.27	1.93	2.18	.70	.38	.14	.25
IN.‡	.13	.49	.94	.47	6.52	1.46	2.15	2.51	.78	.44	.16	.28

CAL YR 1980 TOTAL 14840.82 MEAN 40.5 MAX 410 MIN .38 MEAN‡ 40.4 CFSM‡ 1.04 IN.‡ 14.19
WTR YR 1981 TOTAL 17019.10 MEAN 46.6 MAX 693 MIN 1.1 MEAN‡ 46.7 CFSM‡ 1.20 IN.‡ 16.34

‡ Adjusted for change in contents in Stillwater Lake.

01534500 LACKAWANNA RIVER AT ARCHBALD, PA

LOCATION.--Lat 41°30'16", long 75°32'33", Lackawanna County, Hydrologic Unit 02050107, on right bank in Archbald, 0.5 mi (0.8 km) upstream from White Oak Run and Gilmartin Street Bridge.

DRAINAGE AREA.--108 mi^2 (280 km^2).

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 889.33 ft (271.068 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Regulation at low flow by mine pumps above station. Flow regulated since December 1959 by Stillwater Lake (station 01534180) about 17 mi (27 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 203 ft^3/s (5.749 m^3/s), 25.52 in/yr (648 mm/yr), adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,510 ft^3/s (269 m^3/s) May 22, 1942, gage height, 10.58 ft (3.225 m), from rating curve extended above 2,200 ft^3/s (62.3 m^3/s) on basis of slope-area measurement of peak flow; minimum, 3.0 ft^3/s (0.085 m^3/s) Oct. 9, 11, 1943; minimum gage height, 1.08 ft (0.329 m) Oct. 18, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,100 ft^3/s (59.5 m^3/s) Feb. 11, gage height, 5.47 ft (1.667 m); minimum 11 ft^3/s (0.31 m^3/s) Oct. 18, gage height 1.56 ft (0.475 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	29	81	51	31	376	105	385	94	58	44	24
2	23	28	94	51	513	315	140	339	116	71	41	28
3	23	27	180	43	355	270	128	289	111	63	39	28
4	23	25	165	41	267	235	123	252	133	65	43	25
5	21	25	133	43	207	217	128	224	118	67	41	27
6	21	25	116	43	177	193	138	203	105	71	38	27
7	21	24	111	44	171	177	133	187	90	73	35	27
8	20	35	111	41	157	165	125	165	79	65	41	32
9	20	38	138	41	130	157	128	151	92	58	36	38
10	19	43	151	41	118	151	135	138	85	49	36	47
11	21	41	135	38	1060	145	138	187	77	46	38	44
12	20	38	118	36	934	140	138	503	71	41	36	36
13	20	36	111	35	1140	138	154	508	61	37	35	31
14	19	35	98	36	961	133	207	447	90	39	35	28
15	19	33	81	38	704	123	245	465	190	36	34	25
16	19	31	87	38	499	125	231	648	157	35	34	25
17	17	25	81	38	420	111	238	513	133	33	33	23
18	20	27	75	36	479	107	242	420	116	32	32	23
19	19	35	79	38	553	107	210	343	98	32	32	28
20	19	33	56	36	954	103	190	288	92	56	32	23
21	19	31	58	35	726	94	171	249	92	79	31	23
22	19	33	56	35	1180	92	162	217	107	79	29	25
23	19	32	63	36	1050	90	193	190	114	73	28	33
24	17	71	61	36	980	90	304	168	105	63	27	43
25	39	159	52	35	935	85	323	154	98	58	27	44
26	58	148	52	36	815	83	296	138	92	52	25	43
27	44	116	56	36	715	83	263	133	81	52	24	43
28	43	103	54	36	508	81	245	121	75	49	24	43
29	39	103	56	35	---	79	355	116	67	65	24	33
30	35	90	56	28	---	79	442	109	61	51	24	31
31	32	---	49	27	---	85	---	103	---	47	25	---
TOTAL	768	1519	2814	1183	16739	4429	6030	8353	3000	1695	1023	950
MEAN	24.8	50.6	90.8	38.2	598	143	201	269	100	54.7	33.0	31.7
MAX	58	159	180	51	1180	376	442	648	190	79	44	47
MIN	17	24	49	27	31	79	105	103	61	32	24	23
MEAN‡	25.2	51.5	90.6	44.5	596	140	204	265	99.6	54.3	32.7	32.0
CFSM‡	.23	.48	.84	.41	5.52	1.30	1.89	2.45	.92	.50	.30	.30
IN.‡	.26	.54	.97	.47	5.75	1.50	2.11	2.82	1.03	.58	.35	.34

CAL YR 1980 TOTAL 43072 MEAN 118 MAX 1200 MIN 17 MEAN‡ 118 CFSM‡ 1.09 IN.‡ 14.82
WTR YR 1981 TOTAL 48503 MEAN 133 MAX 1180 MIN 17 MEAN‡ 133 CFSM‡ 1.23 IN.‡ 16.71

‡Adjusted for change in contents in Stillwater Lake.

01536000 LACKAWANNA RIVER AT OLD FORGE, PA

LOCATION.--Lat 41°21'33", long 75°44'41", Lackawanna County, Hydrologic Unit 02050107, on right bank 150 ft (46 m) upstream from Delaware, Lackawanna and Western Railroad Bridge in Old Forge, and 0.5 mi (0.8 km) upstream from St. Johns Creek.

DRAINAGE AREA.--332 mi^2 (860 km^2).

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1432: 1939(M), 1940, 1945.

GAGE.--Water-stage recorder. Datum of gage is 595.26 ft (181.435 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1974, water-stage recorder at same site and datum. Oct. 1, 1974 to Aug. 17, 1975, nonrecording gage at site 150 ft (46 m) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since December 1959 by Stillwater Lake (station 01534180), about 33 mi (53 km) upstream. Several observations of water temperature were madeduring the year.

AVERAGE DISCHARGE.--43 years, 497 ft^3/s (14.08 m^3/s), 20.33 in/yr (516 mm/yr), adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft^3/s (878 m^3/s) Aug. 19, 1955, gage height, 20.05 ft (6.111 m), from floodmark, from rating curve extended above 8,000 ft^3/s (227 m^3/s) on basis of slope-area measurements at gage height 20.05 ft (6.111 m) and 15.30 ft (4.663 m); minimum, 20 ft^3/s (0.57 m^3/s) Sept. 21, 1964, gage height, 1.28 ft (0.390 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,280 ft^3/s (121 m^3/s) Feb. 11, gage height, 6.71 ft (2.045 m); minimum 28 ft^3/s (0.79 m^3/s) Oct. 24, minimum gage height, 2.02 ft (0.616 m) Oct. 24, Sept. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	54	135	77	56	761	210	1140	172	91	91	48
2	46	45	145	79	1730	653	300	882	349	132	82	52
3	52	43	261	71	1070	589	260	727	329	109	84	58
4	37	43	232	66	550	516	250	629	381	120	87	48
5	35	41	199	67	381	495	270	550	370	145	109	43
6	37	39	175	68	329	445	290	509	269	150	96	41
7	37	45	165	67	296	392	270	445	210	112	87	41
8	38	71	162	66	261	364	257	392	175	99	112	66
9	35	66	199	64	221	339	269	339	236	91	89	101
10	35	69	224	65	203	334	310	310	203	94	79	66
11	48	60	195	60	2800	323	310	426	188	77	99	66
12	39	54	169	57	2370	310	319	1340	145	69	99	62
13	41	52	158	55	1730	296	334	1140	124	79	82	50
14	37	50	142	57	1590	292	409	900	228	99	77	50
15	35	48	122	59	1220	253	516	1180	744	69	73	56
16	35	46	135	60	936	257	451	2000	495	62	82	73
17	35	48	125	59	830	217	451	1400	344	58	71	62
18	37	52	115	57	936	199	509	1060	274	56	66	56
19	43	64	125	58	1060	199	426	847	214	84	62	101
20	37	69	77	57	1560	188	381	711	199	241	62	62
21	37	64	82	56	1830	175	339	613	188	403	60	56
22	35	69	89	56	1940	162	314	536	236	392	58	66
23	35	66	101	60	1780	162	398	463	236	232	56	79
24	35	185	96	62	2410	162	686	403	179	179	73	87
25	139	329	75	62	1760	150	686	354	175	156	62	77
26	150	241	94	62	1460	142	605	314	165	139	54	75
27	73	188	101	64	1270	135	550	287	142	158	52	89
28	64	175	99	62	963	128	516	257	122	117	50	114
29	58	165	99	58	---	124	856	241	104	214	43	64
30	54	150	94	45	---	120	1640	236	96	123	41	56
31	54	---	75	46	---	150	---	199	---	104	50	---
TOTAL	1508	2691	4265	1902	33542	9032	13382	20830	7292	4254	2288	1965
MEAN	48.6	89.7	138	61.4	1198	291	446	672	243	137	73.8	65.5
MAX	150	329	261	79	2800	761	1640	2000	744	403	112	114
MIN	35	39	75	45	56	120	210	199	96	56	41	41
MEAN‡	49.0	90.6	138	67.7	1196	288	449	668	243	137	73.5	65.8
CFSM‡	.15	.27	.42	.20	3.60	.87	1.35	2.01	.73	.41	.22	.20
IN.‡	.17	.30	.48	.23	3.75	1.00	1.51	2.32	.81	.47	.25	.22

CAL YR 1980 TOTAL 90008 MEAN 246 MAX 2980 MIN 35 MEAN‡ 246 CFSM‡ 0.74 IN.‡ 10.08
WTR YR 1981 TOTAL 102951 MEAN 282 MAX 2800 MIN 35 MEAN‡ 282 CFSM‡ 0.85 IN.‡ 11.54

‡Adjusted for change in contents in Stillwater Lake.

RESERVOIR IN LACKAWANNA RIVER BASIN

01534180 STILLWATER LAKE.--Lat 41°41'46", long 75°29'10", Susquehanna County, Hydrologic Unit 02050107, at Stillwater Dam on Lackawanna River, 0.3 mi (0.5 km) downstream from confluence of East and West Branches, 1.4 mi (2.3 km) south of Uniondale and 3.5 mi (5.6 km) north of Forest City. DRAINAGE AREA, 37.1 mi^2 (96.1 km^2). PERIOD OF RECORD, December 1959 to current year. GAGE water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill dam, rock faced, with ungated concrete spillway at elevation 1,621.00 ft (494.081 m). Storage began in December 1959. Capacity at elevation 1,621.00 ft (494.081 m) is 12,000 acre-ft (14.8 hm^3). Reservoir is used for flood control and municipal water supply. Figures given herein represent total contents. Flood storage is regulated by power-operated slide gate; water supply storage is regulated by a weir formed by stop logs. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,000 acre-ft (7.40 hm^3) March 7, 1979 elevation, 1,604.01 ft (488.302 m); minimum, 242 acre-ft (0.298 hm^3) Sept. 10, 1960 elevation, 1,568.35 ft (478.185 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 2,949 acre-ft (3.64 hm^3) Feb. 12 elevation, 1,590.83 ft (484.885 m); minimum, 353 acre-ft (0.435 hm^3) Oct. 10, elevation, 1,572.11 ft (479.179 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01534180	Stillwater Lake	
Sept. 30	1572,14	414	--
Oct. 31	1572.38	438	+ 0.4
Nov. 30	1572.93	493	+ 0.9
Dec. 31	1572.79	479	- 0.2
CAL YR 1980	--	--	- 0.11
Jan. 31	1576.67	867	+ 6.3
Feb. 28	1575.78	778	- 1.6
Mar. 31	1573.61	561	- 3.5
Apr. 30	1575.32	732	+ 2.9
May 31	1573.11	511	- 3.6
June 30	1572.88	488	- 0.4
July 31	1572.62	462	- 0.4
Aug. 31	1572.42	442	- 0.3
Sept. 30	1572.60	460	+ 0.3
WTR YR 1981	--	--	+ 0.06

01536500 SUSQUEHANNA RIVER AT WILKES-BARRE, PA

LOCATION.--Lat 41°15'03", long 75°52'52", Luzerne County, Hydrologic Unit 02050107, on left bank at foot of West Union Street, 800 ft (244 m) downstream from North Street Bridge, and 1.6 mi (2.6 km) upstream from Toby Creek.

DRAINAGE AREA.--9,960 mi^2 (25,800 km^2), approximately.

PERIOD OF RECORD.--April 1899 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage-height records collected at same site since November 1890 contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 109: 1900-1905. WSP 351; Drainage area. WSP 781: 1902(M). WSP 1302: 1916. WSP 1432: 1901-5, 1907, 1909, 1913, 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 512.07 ft (156.079 m) National Geodetic Vertical Datum of 1929. See WSP 1722 for history of changes prior to Mar. 23, 1949.

REMARKS.--Records good except those for winter periods, which are fair. Flow slightly regulated by 8 flood-control reservoirs, which have a combined capacity of 368,800 acre-ft (455 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--82 years, 13,370 ft^3/s (379 m^3/s), 18.23 in/yr (463 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 345,000 ft^3/s (9,770 m^3/s) June 24, 1972, gage height 40.91 ft (12.469 m), from floodmark, from rating curve extended above 230,000 ft^3/s (6,514 m^3/s) on basis of slope-area measurement of peak flow; minimum, 528 ft^3/s (15.0 m^3/s) Sept. 27, 1964, gage height, -1.78 ft (-0.543 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1899, 33.1 ft (10.1 m) Mar. 18, 1865, from floodmarks, discharge, about 232,000 ft^3/s (6,570 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 104,000 ft^3/s (2,950 m^3/s) Feb. 22, gage height, 19.57 ft (5.965 m); minimum, 1,000 ft^3/s (28.3 m^3/s) Oct. 17, gage height, -0.67 ft (-0.204 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	4500	11000	2800	2500	32400	8050	36700	5650	6030	3220	1290
2	1120	3880	10800	2800	3100	28500	9800	28000	6610	5520	3260	1280
3	1240	3420	11000	2700	4000	25700	10700	22900	8170	5280	2710	1300
4	1220	3010	12100	2600	7000	22400	11400	19800	8200	5520	2330	1320
5	1160	2650	14200	2600	6300	19200	11600	16200	8020	5150	2630	1410
6	1130	2550	13200	2500	5800	17100	11100	14000	8110	5630	2580	1500
7	1110	2330	11000	2500	6400	15500	10300	12500	7240	5570	4040	1860
8	1120	2270	9410	2400	7000	14300	10200	11200	6280	6310	3760	2400
9	1120	2290	9350	2400	6500	13400	10100	10300	5890	5180	3220	3970
10	1110	2250	10400	2300	9000	12800	9700	9510	5570	4750	3640	4740
11	1140	2330	13700	2300	31400	12300	9410	8970	5490	4180	4070	6060
12	1150	2450	13800	2300	84400	12100	9540	12800	5790	3620	3240	5700
13	1130	2750	11900	2200	71800	11800	9540	16100	5980	3180	2730	4870
14	1090	3310	10200	2200	52400	11600	10000	18900	6000	2920	2840	4290
15	1080	3530	8000	2200	39900	11300	11300	17700	6810	2670	2860	3620
16	1050	3400	7000	2100	32300	10800	12700	22500	11200	2510	2970	3070
17	1020	3400	6000	2100	30000	10300	12800	27700	19000	2250	2910	2700
18	1070	3620	5400	2100	34100	9800	12200	26200	12600	2140	2900	2750
19	1160	3620	4800	2100	49300	9160	12100	21100	10900	2030	2710	3240
20	1260	3460	4100	2100	61200	8530	12200	17100	9670	2290	2410	3250
21	1240	3260	3800	2100	91000	7920	11600	14300	9540	2610	2170	2990
22	1140	3260	3300	2100	99100	7480	10600	12200	9130	3370	1970	2810
23	1110	3220	3000	2100	80800	7210	9610	10800	13300	3070	1810	2760
24	1120	3530	2700	2100	88400	7070	10800	9740	13200	2840	1690	2780
25	1250	4820	2600	2100	87600	6980	13400	8630	11100	3130	1600	3010
26	1470	7750	2400	2100	63800	7130	16300	7690	9320	3200	1460	8210
27	1760	14900	2300	2200	49500	7100	16200	7210	8140	3110	1430	11200
28	4090	14800	2300	2200	37600	6950	14800	6610	7750	2820	1420	9370
29	6580	12000	2600	2200	---	7070	15200	6280	8110	2690	1370	7560
30	6810	10800	3000	2200	---	7450	25900	6110	7240	2430	1330	7010
31	5470	---	2900	2300	---	7660	---	5950	---	2510	1320	---
TOTAL	54610	139360	228260	71000	1142200	389010	359150	465700	260010	114510	78600	118320
MEAN	1762	4645	7363	2290	40790	12550	11970	15020	8667	3694	2535	3944
MAX	6810	14900	14200	2800	99100	32400	25900	36700	19000	6310	4070	11200
MIN	1020	2250	2300	2100	2500	6950	8050	5950	5490	2030	1320	1280
CFSM	.18	.47	.74	.23	4.10	1.26	1.20	1.51	.87	.37	.26	.40
IN.	.20	.52	.85	.27	4.27	1.45	1.34	1.74	.97	.43	.29	.44

CAL YR 1980 TOTAL 3552340 MEAN 9706 MAX 95800 MIN 1020 CFSM .97 IN 13.27
WTR YR 1981 TOTAL 3420730 MEAN 9372 MAX 99100 MIN 1020 CFSM .94 IN 12.78

01537000 TOBY CREEK AT LUZERNE, PA

LOCATION.--Lat 41°16'57", long 75°53'46", Luzerne County, Hydrologic Unit 02050107, on left bank, at Luzerne, 150 ft (46 m) upstream from bridge on U.S. Highway 309, 0.5 mi (0.8 km) upstream from inlet works of flood basin, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--32.4 mi^2 (83.9 km^2).

PERIOD OF RECORD.--August 1941 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 574.60 ft (175.138 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by Huntsville Reservoir 5.9 mi (9.5 km) upstream, usable capacity, 256,900,000 ft^3/s (7.28 hm^3). Diversion from reservoir for municipal supply. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 45.3 ft^3/s (1.283 m^3/s), 18.99 in/yr (482 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 ft^3/s (96.0 m^3/s) June 22, 1972, gage height, 6.07 ft (1.850 m) in gage well, 7.59 ft (2.313 m) outside, from floodmarks, from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.1 ft^3/s (0.003 m^3/s) Sept. 12, 1944; minimum daily, 0.5 ft^3/s (0.014 m^3/s) Sept. 20, Oct. 8, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 923 ft^3/s (26.14 m^3/s) Feb. 11, gage height, 3.26 ft (0.994 m); minimum 1.2 ft^3/s (0.034 m^3/s), gage height 0.15 ft (0.046 m) Nov. 11; minimum daily, 3.0 ft^3/s (0.085 m^3/s) Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	4.2	8.8	4.7	5.0	46	18	39	13	8.8	8.4	8.4
2	9.6	5.0	10	4.6	206	39	32	34	30	15	10	7.6
3	6.9	4.2	22	4.6	69	34	18	29	26	10	9.2	9.2
4	4.7	3.7	13	4.5	54	29	17	25	33	19	9.2	7.9
5	5.0	4.2	11	4.5	30	29	21	24	27	21	39	7.7
6	3.0	4.0	10	5.1	26	27	20	23	21	16	12	7.9
7	3.3	4.5	10	6.2	16	24	18	21	19	11	12	7.7
8	6.6	6.6	9.6	5.9	20	24	18	18	13	9.6	14	7.4
9	6.3	7.9	8.4	5.6	19	25	18	16	20	11	14	14
10	6.3	7.7	12	5.3	20	22	18	16	15	11	12	13
11	6.6	6.3	8.8	5.1	733	21	18	32	11	9.2	13	8.8
12	6.3	5.7	7.3	4.8	239	20	18	82	8.8	9.6	25	6.7
13	6.0	6.0	7.3	4.7	103	18	22	38	8.4	9.2	17	5.6
14	6.0	6.0	7.7	4.5	70	17	38	30	25	9.2	15	4.9
15	5.3	6.3	6.6	4.4	58	16	31	119	53	8.8	16	21
16	6.0	5.3	9.6	4.3	46	16	25	157	27	7.7	17	22
17	5.3	5.3	8.8	4.1	39	14	25	105	17	7.4	14	7.8
18	5.0	6.9	8.1	4.0	36	15	23	76	12	7.1	11	4.9
19	6.3	6.6	7.5	4.0	35	14	21	62	11	7.6	9.6	22
20	6.0	6.6	6.8	4.1	50	14	19	51	15	27	12	12
21	5.7	6.6	6.4	4.3	90	13	18	41	15	30	13	8.4
22	5.7	7.3	6.1	4.4	120	13	17	35	26	21	14	9.6
23	5.7	7.3	5.8	4.5	149	13	27	29	20	12	12	9.6
24	5.3	34	5.6	4.5	176	12	31	25	12	9.6	10	9.2
25	13	19	5.4	4.5	112	12	24	21	12	11	8.8	7.7
26	10	12	5.3	4.4	84	11	21	20	12	11	5.0	7.7
27	5.3	9.2	5.1	4.4	64	11	18	18	10	14	6.2	7.9
28	5.0	12	5.0	4.4	52	11	23	17	10	11	6.9	9.2
29	4.7	11	4.9	4.3	---	12	59	23	9.2	17	6.9	7.7
30	4.5	9.6	4.8	4.1	---	14	51	21	8.4	10	7.1	12
31	4.0	---	4.7	4.2	---	15	---	18	---	9.2	7.9	---
TOTAL	190.4	241.0	252.4	143.0	2721.0	601	727	1265	539.8	391.0	387.2	295.5
MEAN	6.14	8.03	8.14	4.61	97.2	19.4	24.2	40.8	18.0	12.6	12.5	9.85
MAX	13	34	22	6.2	733	46	59	157	53	30	39	22
MIN	3.0	3.7	4.7	4.0	5.0	11	17	16	8.4	7.1	5.0	4.9
(†)	4.1	4.1	4.1	6.7	5.7	5.9	5.6	5.1	5.7	5.2	5.2	5.2
MEAN‡	10.2	12.1	12.2	11.3	103	25.3	29.8	45.9	23.7	17.8	17.7	15.0
CFSM‡	.31	.37	.38	.35	3.18	.78	.92	1.42	.73	.55	.55	.46
IN.‡	.36	.41	.44	.40	3.31	.90	1.03	1.64	.81	.63	.63	.51

CAL YR 1980 TOTAL 9263.1 MEAN 25.3 MAX 227 MIN 3.0 MEAN‡ 29.4 CFSM‡ .91 IN.‡ 12.4
WTR YR 1981 TOTAL 7754.3 MEAN 21.2 MAX 733 MIN 3.0 MEAN‡ 26.4 CFSM‡ .82 IN.‡ 11.1

† Diversion, equivalent in cubic feet per second, for municipal supply, furnished by Pennsylvania Gas and Water Company.

‡ Adjusted for diversion.

BEST DOCUMENT AVAILABLE

01537500 SOLOMON CREEK AT WILKES-BARRE, PA

LOCATION.--Lat 41°13'39", long 75°54'17", Luzerne County, Hydrologic Unit 02050107, on right bank at southwest city limits of Wilkes-Barre, 20 ft (6 m) downstream from bridge on Central Railroad of Pennsylvania, 0.4 mi (0.6 km) downstream from Spring Run and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--15.7 mi^2 (40.7 km^2).

PERIOD OF RECORD.--March 1940 to current year. Monthly discharge only for March 1940, published in WSP 1302.

REVISED RECORDS.--WSP 1272: Drainage area. WSP 1382: 1940, 1942, 1944(P), 1945-47, 1949(M), 1951-52, 1953-54 (M).

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 545 ft (166 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by mine pumps above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 19.4 ft^3/s (0.549 m^3/s), 16.78 in/yr (426 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,450 ft^3/s (69.4 m^3/s) Aug. 18, 1955, gage height, 9.83 ft (2.996 m), from rating curve extended above 380 ft^3/s (10.8 m^3/s) on basis of computation of peak flow through culvert; minimum daily, 0.02 ft^3/s (0.001 m^3/s) Aug. 29, 1980; minimum gage height, 0.14 ft (0.043 m) Aug. 16, 25, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 16, 1933 reached a stage of 11.4 ft (3.47 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--peak discharges above base of 320 ft^3/s (9.06 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 2	Unknown	580	16.4	4.08	1.244	Feb. 11	0245	*645	18.3	*4.31	1.314

Minimum daily discharge, 0.06 ft^3/s (0.002 m^3/s) Oct. 9, 10, 14, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.17	2.9	.16	.71	26	6.4	39	3.7	5.9	1.4	.30
2	1.0	.30	6.1	.15	140	23	9.2	33	9.6	9.9	1.0	.37
3	.68	.17	5.6	.15	68	20	7.9	27	5.4	6.1	.81	.61
4	.97	.71	4.9	.14	51	17	6.7	23	9.9	12	.81	.28
5	.54	.61	5.4	.14	42	16	13	19	6.4	12	3.3	.24
6	.36	.28	4.1	.14	34	14	13	17	2.7	12	1.9	.19
7	.27	.52	3.2	.13	29	11	13	14	2.0	10	1.2	.19
8	.22	.28	2.5	.13	25	10	12	12	2.0	9.6	3.5	1.3
9	.06	1.4	2.1	.13	24	8.9	10	10	4.8	8.5	1.9	1.0
10	.06	.26	1.8	.13	39	8.9	11	9.2	3.1	7.3	1.2	.26
11	.07	.24	1.5	.12	457	7.3	11	23	2.5	5.9	2.4	.17
12	.07	.22	1.3	.12	152	7.9	11	46	2.5	4.9	2.7	.07
13	.26	.19	1.1	.12	75	6.7	16	35	2.9	4.1	1.3	.07
14	.06	.17	.97	.12	48	6.7	24	31	5.9	3.7	1.2	1.0
15	.06	.15	.84	.12	36	6.4	22	61	9.6	2.9	1.2	2.7
16	.06	.13	.70	.12	29	5.9	20	63	4.1	2.4	1.0	3.1
17	.07	.12	.58	.12	27	6.1	18	48	3.5	1.7	.71	1.9
18	.30	.11	.48	.11	26	5.4	18	38	2.9	1.3	.52	2.0
19	.19	.11	.41	.11	25	5.9	15	31	2.7	1.2	.37	3.1
20	.07	.11	.37	.11	41	4.6	13	26	5.9	4.6	.28	1.6
21	.07	.10	.33	.11	54	5.1	11	23	7.9	12	.26	.71
22	.19	.10	.30	.11	64	3.9	10	19	20	7.6	.24	.92
23	.07	.10	.27	.11	71	4.9	14	14	16	3.5	.26	.92
24	.07	13	.24	.11	90	3.9	18	13	14	2.5	.52	.81
25	6.7	9.9	.23	.11	61	4.4	15	11	14	2.9	1.2	.61
26	4.1	3.9	.21	.11	47	3.5	14	8.2	13	3.5	.37	.52
27	.92	3.3	.20	.11	37	4.1	13	7.0	10	3.9	.26	1.6
28	.37	3.1	.19	.11	32	3.1	19	5.9	8.9	5.4	.19	3.1
29	.71	3.1	.18	.10	---	3.5	42	9.2	7.6	4.6	.17	1.6
30	.19	2.9	.17	.10	---	3.9	46	4.9	6.4	3.5	.22	1.3
31	.52	---	.17	.10	---	4.6	---	3.7	---	.81	.37	---
TOTAL	20.48	45.75	49.34	3.75	1824.71	262.6	472.2	724.1	209.9	176.21	32.76	32.54
MEAN	.66	1.53	1.59	.12	65.2	8.47	15.7	23.4	7.00	5.68	1.06	1.08
MAX	6.7	13	6.1	.16	457	26	46	63	20	12	3.5	3.1
MIN	.06	.10	.17	.10	.71	3.1	6.4	3.7	2.0	.81	.17	.07
CFSM	.04	.10	.10	.008	4.15	.54	1.00	1.49	.45	.36	.07	.07
IN.	.05	.11	.12	.01	4.32	.62	1.12	1.72	.50	.42	.08	.08

CAL YR 1980 TOTAL 2276.77 MEAN 6.22 MAX 67 MIN .02 CFSM .40 IN 5.39
WTR YR 1981 TOTAL 3854.34 MEAN 10.6 MAX 457 MIN .06 CFSM .68 IN 9.13

01538000 WAPWALLOPEN CREEK NEAR WAPWALLOPEN, PA

LOCATION.--Lat 41°03'33", long 76°05'38", Luzerne County, Hydrologic Unit 02050107, on left bank 100 ft (30 m) upstream from Harts Bridge, 2.2 mi (3.5 km) southeast of Wapwallopen and 3.7 mi (6.0 km) upstream from mouth.

DRAINAGE AREA.--43.8 mi^2 (113.4 km^2).

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1302: 1926(M), 1929(M), 1938(M). WSP 1432: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 752.41 ft (229.33 m) Penn Central Railroad datum. Prior to Mar. 15, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good, except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--62 years, 64.5ft^3/ss (1.827 m^3/s), 20.00 in/yr (508 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft^3/s (153 m^3/s) June 22, 1972, gage height, 11.04 ft (3.365 m), from rating curve extended above 1,400 ft^3/s (39.6 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 1.1 ft^3/s (0.031 m^3/s) Aug. 4, 1955, gage height, 0.44 ft (0.314 m); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Aug. 31, 1953, Aug. 5, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 580 ft^3/s (16.4 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 2	-	-	-	ice jam		Feb. 24	0200	655	18.5	4.34	1.323
Feb. 11	-	*2,920	82.7	a*10.88	3.316	May 15	2230	607	17.2	4.19	1.277

Minimum discharge, 5.1 ft^3/s (0.14 m^3/s) Oct. 4; minimum gage height, 1.22 ft (0.372 m) Aug. 30, Sept. 14.

a Ice jam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	8.6	17	6.6	13	109	32	100	31	23	11	9.6
2	5.9	8.6	15	6.6	30	95	69	89	57	29	11	9.1
3	7.7	8.6	28	6.5	24	81	46	77	51	31	10	11
4	7.2	8.6	20	6.5	21	71	39	69	54	33	11	9.6
5	6.8	10	16	6.5	19	70	45	63	75	57	11	9.6
6	5.9	10	18	6.4	18	65	62	59	46	40	12	9.1
7	5.9	10	19	6.4	17	58	46	56	36	30	11	7.7
8	6.3	10	17	6.4	18	54	42	48	31	25	15	7.7
9	6.8	11	17	6.4	19	54	45	45	37	22	17	10
10	6.3	15	23	6.4	20	56	53	42	34	21	11	9.1
11	7.2	14	19	6.4	1960	56	46	80	31	19	11	7.7
12	7.7	12	17	6.4	1340	56	47	241	25	17	21	7.2
13	7.2	12	16	6.4	1100	52	52	127	22	17	14	7.2
14	7.2	11	13	6.4	500	47	80	100	34	21	12	6.3
15	7.2	12	9.1	6.8	305	42	95	206	95	17	11	20
16	7.2	11	8.5	7.1	200	43	70	318	53	15	11	20
17	7.7	10	8.2	7.5	132	39	69	182	35	14	9.1	18
18	7.7	13	8.0	8.0	111	44	67	142	29	13	8.1	13
19	9.1	16	7.8	8.6	108	38	58	120	25	12	7.7	31
20	9.1	13	7.6	9.0	188	37	54	104	34	19	7.7	18
21	9.1	14	7.4	9.5	243	34	48	89	35	43	6.8	12
22	10	13	7.3	10	195	33	46	78	30	44	6.8	11
23	11	15	7.2	10	215	35	66	69	75	22	7.2	12
24	12	69	7.0	11	436	34	103	61	48	17	6.8	11
25	14	84	6.9	11	248	32	74	53	44	15	9.1	9.6
26	39	34	6.8	11	186	30	59	50	46	15	7.7	9.1
27	18	23	6.7	12	147	29	54	48	37	25	7.2	8.1
28	12	20	6.7	12	125	27	54	42	31	17	6.8	9.1
29	11	21	6.6	12	---	26	113	45	28	15	6.8	9.6
30	9.6	17	6.6	12	---	28	143	44	25	14	6.8	8.1
31	8.6	---	6.6	13	---	36	---	36	---	12	9.1	---
TOTAL	296.3	534.4	380.0	260.8	7938	1511	1877	2881	1294	714	313.7	340.5
MEAN	9.56	17.8	12.3	8.41	284	48.7	62.6	92.9	43.1	23.0	10.1	11.4
MAX	39	84	28	13	1960	109	143	318	95	57	21	31
MIN	5.9	8.6	6.6	6.4	13	26	32	36	22	12	6.8	6.3
CFSM	.22	.41	.28	.19	6.48	1.11	1.43	2.12	.98	.53	.23	.26
IN.	.25	.45	.32	.22	6.74	1.28	1.59	2.45	1.10	.61	.27	.29

CAL YR 1980 TOTAL 14002.6 MEAN 38.3 MAX 332 MIN 5.5 CFSM .87 IN 11.89
WTR YR 1981 TOTAL 18340.7 MEAN 50.2 MAX 1960 MIN 5.9 CFSM 1.15 IN 15.58

01539000 FISHING CREEK NEAR BLOOMSBURG, PA

LOCATION.--Lat 41°04'41", long 76°25'53", Columbia County, Hydrologic Unit 02050107, on left bank 25 ft (8 m) downstream from highway bridge, 0.8 mi (1.3 km) downstream from Green Creek, 0.9 mi (1.4 km) west of Orangeville, and 5.5 mi (8.8 km) north of Bloomsburg.

DRAINAGE AREA.--274 mi² (710 km²).

PERIOD OF RECORD.--June 1938 to current year.

REVISED RECORDS.--WSP 1202: 1939-42, 1948(P), 1950.

GAGE.--Water-stage recorder. Datum of gage is 543.84 ft (165.762 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 479 ft³/s (13.56 m³/s), 23.74 in/yr (603 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft³/s (875 m³/s) June 22, 1972, gage height, 15.18 ft (4.627 m), from floodmark in gage shelter, from rating curve extended above 9,500 ft³/s (269 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 7.6 ft³/s (0.22 m³/s) July 19, 1939; minimum gage height, 1.29 ft (0.393 m) Oct. 1, 2, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 2	2400	*8,430	239	a*8.60	2.621	Feb. 24	0300	4,260	121	6.33	1.929
Feb. 21	0200	4,780	135	6.66	2.030						

Minimum discharge, 18 ft³/s (0.51 m³/s), gage height, 1.29 ft (0.393 m) Oct. 1, 2.

a 9.74 ft (2.969 m) from floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	39	199	58	49	895	234	1000	171	180	151	39
2	18	36	195	57	309	758	328	895	202	212	134	57
3	20	34	459	56	679	624	309	736	261	249	124	57
4	20	33	363	55	435	520	277	630	353	206	118	62
5	20	32	273	54	343	489	333	558	435	218	112	60
6	20	32	234	53	300	435	441	526	304	251	117	57
7	19	32	223	52	273	368	363	538	246	214	109	57
8	19	32	227	51	269	333	333	418	202	177	105	57
9	19	33	261	50	253	313	328	358	282	155	114	280
10	18	38	309	49	257	295	343	318	304	137	102	265
11	19	39	273	49	4090	282	309	459	246	122	94	232
12	20	36	230	49	2490	277	318	1410	199	112	134	202
13	20	34	216	49	1800	265	353	1140	174	102	121	167
14	19	32	195	50	1590	246	584	911	358	99	100	143
15	18	32	143	53	1250	220	968	765	1280	98	91	171
16	18	31	167	54	1030	227	795	872	1090	85	89	185
17	18	31	164	55	968	202	722	672	714	76	85	181
18	18	36	137	57	1090	171	672	558	520	71	78	171
19	19	41	152	63	1490	178	551	482	401	65	68	195
20	18	41	109	60	3260	178	482	435	470	109	63	206
21	19	37	96	57	4030	174	412	379	441	356	59	164
22	18	41	91	54	2580	171	368	333	558	520	54	143
23	18	42	84	55	2080	171	429	295	545	304	51	171
24	18	140	79	54	3580	167	707	261	429	223	47	158
25	37	513	75	54	2250	161	590	234	363	191	45	134
26	140	358	72	52	1650	149	513	216	368	186	44	121
27	80	249	69	51	1300	143	464	199	299	369	41	114
28	54	242	67	57	1080	137	441	185	250	263	38	119
29	49	269	64	57	---	129	780	185	219	230	36	126
30	45	230	62	49	---	143	1120	286	200	212	34	119
31	42	---	60	44	---	273	---	209	---	176	36	---
TOTAL	898	2815	5348	1658	40775	9094	14867	16463	11884	5968	2594	4213
MEAN	29.0	93.8	173	53.5	1456	293	496	531	396	193	83.7	140
MAX	140	513	459	63	4090	895	1120	1410	1280	520	151	280
MIN	18	31	60	44	49	129	234	185	171	65	34	39
CFSM	.11	.34	.63	.20	5.31	1.07	1.81	1.94	1.45	.70	.31	.51
IN.	.12	.38	.73	.23	5.54	1.23	2.02	2.24	1.61	.81	.35	.57

CAL YR 1980 TOTAL 107441 MEAN 294 MAX 4010 MIN 18 CFSM 1.07 IN 14.59
WTR YR 1981 TOTAL 116577 MEAN 319 MAX 4090 MIN 18 CFSM 1.16 IN 15.83

01540200 TREXLER RUN NEAR RINGTOWN, PA

LOCATION.--Lat 40°51'10", long 76°16'48", Schuylkill County, Hydrologic Unit 02050107, at bridge on Legislative Route 53064, 1.9 mi (3.1 km) upstream from mouth and 2.5 mi (4.0 km) west of Ringtown.

DRAINAGE AREA.--1.77 mi^2 (4.58 km^2).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1959-63. August 1963 to March 1981. (discontinued)

GAGE.--Water-stage recorder and masonry control. Altitude of gage is 1,110 ft (338 m) from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, (water years 1964-80), 2.25 ft^3/s (0.064 m^3/s) 17.26 in/yr (438 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 487 ft^3/s (13.8 m^3/s) June 22, 1972, gage height, 5.15 ft (1.570 m), from rating curve extended above 40 ft^3/s (1.13 m^3/s) on basis of contracted-opening measurement with flow over road at gage height 5.15 ft (1.570 m) and culvert computation at gage height 3.95 ft (1.204 m); no flow for many days; minimum gage height, 0.80 ft (0.244 m) July 19, 20, 21, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1980 to March 1981, 62 ft^3/s (1.756 m^3/s) Feb. 11, gage height 2.78 ft (0.847 m); minimum daily discharge 0.05 ft^3/s (0.001 m^3/s) Jan. 2-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.12	.18	.06	.07	5.1						
2	.11	.12	.23	.05	1.6	4.2						
3	.13	.12	.29	.05	.50	3.4						
4	.11	.12	.20	.05	.25	2.8						
5	.11	.12	.20	.05	.23	2.6						
7	.11	.13	.19	.05	.18	1.9						
8	.11	.15	.19	.05	.17	1.7						
9	.10	.15	.19	.05	.16	1.7						
10	.11	.13	.19	.05	.65	1.6						
11	.12	.12	.16	.05	33	1.5						
12	.11	.12	.16	.05	12	1.5						
13	.11	.12	.15	.05	8.0	1.7						
14	.11	.12	.15	.05	6.6	1.4						
15	.11	.10	.15	.05	5.6	1.3						
16	.11	.09	.14	.05	4.6	1.3						
17	.11	.09	.13	.05	4.0	1.1						
18	.11	.20	.12	.06	3.4	1.2						
19	.12	.16	.12	.06	3.1	1.2						
20	.11	.15	.11	.06	8.3	1.1						
21	.11	.15	.10	.06	8.3	1.0						
22	.11	.18	.09	.06	7.6	.98						
23	.11	.16	.09	.06	12	.98						
24	.11	1.6	.08	.06	13	.98						
25	.11	.60	.08	.06	11	.92						
26	.29	.26	.07	.06	8.8	.86						
27	.20	.21	.07	.06	7.3	.81						
28	.15	.22	.06	.07	6.4	.75						
29	.13	.21	.06	.07	---	.75						
30	.12	.21	.06	.07	---	.98						
31	.12	---	.06	.07	---	.86						
TOTAL	3.79	6.35	4.26	1.74	167.01	50.27						
MEAN	.12	.21	.14	.056	5.96	1.62						
MAX	.29	1.6	.29	.07	33	5.1						
MIN	.10	.09	.06	.05	.07	.75						
CFSM	.07	.12	.08	.03	3.37	.92						

CAL YR 1980 TOTAL 528.25 MEAN 1.44 MAX 12 MIN .06 CFSM .81 IN 11.10

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA
(National stream-quality accounting network station)

LOCATION.--Lat 40°57'29", long 76°37'10", Montour County, Hydrologic Unit 02050107, on right bank, 200 ft (61 m) upstream from Mill Street Bridge at Danville and 0.8 mi (1.3 km) upstream from Mahoning Creek.

DRAINAGE AREA.--11,220 mi^2 (29,060 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1899 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1904, 1914-17, 1923. WSP 1432: 1900-03, 1905-06, 1908-10, 1912-13, 1933.

GAGE.--Water-stage recorder. Datum of gage is 431.29 ft (131.457 m) National Geodetic Vertical Datum of 1929. Prior to June 29, 1939, nonrecording gage at or near Mill Street Bridge at same datum. Since Oct. 1, 1971, water-stage recorder for Susquehanna River above dam at Sunbury (station 01553990) used as an auxiliary gage for this station.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Flow slightly regulated by 8 flood-control reservoirs, which have a combined capacity of 368,800 acre-ft (455 hm^3).

AVERAGE DISCHARGE.--82 years, 15,330 ft^3/s (434 m^3/s), 18.55 in/yr (471 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 363,000 ft^3/s (10,300 m^3/s) June 25, 1972, from rating curve extended above 250,000 ft^3/s (7,080 m^3/s); maximum gage height, 32.32 ft (9.851 m) June 24, 1972, backwater from West Branch Susquehanna River; minimum discharge, 508 ft^3/s (14.4 m^3/s) Sept. 27, 1964, gage height, 1.51 ft (0.460 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1865 reached a stage of 28 ft (8.5 m), discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 105,000 ft^3/s (2,970 m^3/s) Feb. 22, gage height, 16.95 ft (5.166 m), backwater from West Branch Susquehanna River; minimum, 1,220 ft^3/s (34.6 m^3/s) Oct. 18, gage height, 2.00 ft (0.610 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	4840	10200	3700	2600	35400	7730	34900	6010	7290	3050	1770
2	1310	4090	10400	3500	3100	31100	8630	33400	6040	6560	3470	1770
3	1370	3590	10600	3300	5900	27800	10300	26000	7370	6300	3560	1730
4	1460	3200	10900	3100	8300	24600	10700	22200	8630	5860	3140	1730
5	1500	2890	12200	3000	7500	21400	11400	18700	8790	6640	2640	1710
6	1420	2610	13400	2900	6900	18700	11800	15800	8170	6340	3030	1770
7	1360	2510	11800	2800	6800	16800	10900	14100	8130	6410	2910	1880
8	1330	2420	9860	2700	8100	15300	10300	12400	7020	6230	4150	2300
9	1310	2370	8920	2700	8000	14200	10300	11200	6530	6110	4150	3350
10	1330	2440	9040	2600	8200	13400	10200	10400	6300	5430	3530	4280
11	1330	2420	10800	2600	39100	12800	9690	9860	5860	4980	3680	4780
12	1360	2370	13300	2500	74000	12400	9730	13400	5610	4440	4180	5720
13	1390	2440	12500	2500	82000	12200	9820	17500	5750	3900	3560	5360
14	1370	2610	10700	2500	61000	11900	10300	19200	6380	3620	3050	4680
15	1330	3050	9090	2500	46100	11500	12200	20100	9340	3320	3050	4310
16	1300	3260	7570	2500	36100	11200	13200	22000	10500	3080	3080	3900
17	1280	3200	6700	2600	31600	10700	13900	27100	16300	2910	3110	3440
18	1240	3410	6000	2600	31800	10100	13700	28800	17000	2740	3030	3110
19	1280	3410	5300	2600	42400	9600	12900	24800	12200	2610	3000	3200
20	1300	3410	4700	2600	58600	8960	12700	20100	11100	2660	2860	3620
21	1460	3260	4100	2600	84200	8460	12500	16600	10200	3620	2640	3440
22	1510	3110	3500	2600	103000	7850	11600	14100	11100	4250	2460	3200
23	1410	3110	3100	2500	91600	7450	10700	12200	12000	4120	2320	3080
24	1310	3320	2900	2500	89400	7220	11000	10800	14900	3620	2200	3000
25	1480	4840	2700	2600	98900	7020	12500	9690	13600	3350	2110	2940
26	1950	5470	2500	2700	76400	6940	15100	8630	12100	3680	2020	3110
27	2080	8880	2400	2800	57000	7020	16800	7770	9990	5260	1880	8210
28	1990	14800	2700	2700	43500	6940	16000	7140	8630	4250	1790	10200
29	3770	13300	3100	2600	---	6790	16000	6830	8250	3710	1770	8340
30	5930	11000	4000	2600	---	6980	20900	6640	8300	3470	1730	6870
31	5930	---	3800	2600	---	7610	---	6380	---	3140	1750	---
TOTAL	55670	131630	228780	84600	1212100	410340	363500	508740	282100	140200	89100	116800
MEAN	1796	4388	7380	2729	43290	13240	12120	16410	9403	4523	2874	3893
MAX	5930	14800	13400	3700	103000	35400	20900	34900	17000	7290	4180	10200
MIN	1240	2370	2400	2500	2600	6790	7730	6380	5610	2610	1730	1710
CFSM	.16	.39	.66	.24	3.86	1.18	1.08	1.46	.84	.40	.26	.35
IN.	.18	.44	.76	.28	4.02	1.36	1.21	1.69	.94	.46	.30	.39

CAL YR 1980 TOTAL 3780080 MEAN 10330 MAX 99500 MIN 1240 CFSM .92 IN 12.53
WTR YR 1981 TOTAL 3623560 MEAN 9928 MAX 103000 MIN 1240 CFSM .89 IN 12.01

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

PERIOD OF RECORD.--October 1945 to June 1953, October 1956 to current year.

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT												
02...	1400	1300	508	8.9	19.0	.60	11.6	K10	460	190	140	48
NOV												
05...	1245	2860	339	7.9	8.0	.50	11.4	K23	110	120	51	32
DEC												
03...	1315	10800	196	8.0	2.0	1.7	12.8	180	K55	76	41	22
JAN												
14...	1200	2500	398	7.5	.5	1.6	9.0	K11	K16	140	83	40
FEB												
12...	0900	74000	160	7.2	.5	2.8	12.8	2700	>6000	46	28	13
MAR												
04...	1300	24500	157	7.5	3.0	2.5	12.4	--	--	67	--	20
APR												
02...	1445	8960	265	9.2	12.5	8.0	11.6	K13	760	100	50	29
MAY												
07...	1430	14000	194	7.3	13.5	1.8	10.4	K45	K3	64	37	18
JUN												
03...	1345	7530	260	7.9	20.5	7.7	6.3	51	--	100	59	27
JUL												
08...	1410	6260	274	8.9	30.0	5.1	8.4	K30	100	98	53	28
AUG												
05...	1320	2810	338	8.7	26.0	4.0	10.4	K10	K1200	120	65	33
SEP												
02...	1300	1770	387	8.1	22.5	.80	9.2	<10	480	140	110	34

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT												
02...	17	24	21	.8	2.6	54	130	33	.2	1.7	334	291
NOV												
05...	8.7	15	22	.6	2.3	65	55	20	<.1	2.3	198	179
DEC												
03...	5.0	8.3	19	.4	1.7	35	34	14	.1	3.3	121	114
JAN												
14...	10	16	19	.6	2.7	58	71	23	.1	2.2	224	205
FEB												
12...	3.2	9.3	30	.6	1.8	18	25	17	<.1	2.9	104	87
MAR												
04...	4.2	5.8	16	.3	1.2	28	29	9.5	<.1	4.4	106	96
APR												
02...	7.1	10	17	.4	1.6	52	45	17	<.1	.1	156	144
MAY												
07...	4.5	7.0	19	.4	1.8	27	36	10	<.1	2.8	122	99
JUN												
03...	8.3	11	19	.5	1.7	43	53	14	.1	1.5	165	144
JUL												
08...	6.9	9.1	16	.4	1.8	45	39	12	<.1	1.0	163	126
AUG												
05...	10	14	19	.5	2.0	59	71	21	.1	1.6	235	188
SEP												
02...	14	18	21	.7	2.0	37	97	22	.1	4.0	245	216

K=Results based on non-ideal colony count.

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT 02...	.45	1170	.40	.38	.030	.030	.87	.26	.90	.61	.29
NOV 05...	.27	1530	1.0	1.0	.250	.220	.45	.28	.70	.20	.50
DEC 03...	.16	3530	.98	.98	.290	.290	.49	.00	.78	.49	.29
JAN 14...	.30	1510	1.3	1.0	.530	.410	.13	.13	.66	.12	.54
FEB 12...	.06	20800	1.0	1.0	.300	.210	13	.48	13.0	12	.69
MAR 04...	.14	7010	1.1	1.1	.070	.070	.33	.33	.40	.00	.40
APR 02...	.21	3770	.59	.59	.010	.010	1.4	1.3	1.40	.10	1.3
MAY 07...	.17	4610	.48	.48	--	.000	--	1.4	--	--	1.4
JUN 03...	.22	3360	.26	.26	.090	.040	.76	.30	.85	.51	.34
JUL 08...	.22	2760	.21	.20	.010	.010	.96	.54	.97	.42	.55
AUG 05...	.32	1780	.07	.07	.010	.010	.83	.34	.84	.49	.35
SEP 02...	.33	1170	.45	.44	.020	.020	.81	.33	.83	.48	.35

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DISSOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 02...	1.3	.67	.070	.010	5.3	--	--	--	7	25	82
NOV 05...	1.7	1.5	.090	.040	4.9	--	--	13000	14	108	76
DEC 03...	1.8	1.3	.130	.030	4.7	--	--	--	28	816	80
JAN 14...	2.0	1.7	.070	.020	--	4.1	.6	--	8	54	62
FEB 12...	14	1.7	1.50	.020	20	--	--	--	870	174000	75
MAR 04...	1.5	1.5	.040	.020	2.9	--	--	260	15	992	94
APR 02...	2.0	1.9	.120	.010	4.4	--	--	--	27	653	57
MAY 07...	--	1.9	.030	.030	--	2.0	1.3	9200	13	491	96
JUN 03...	1.1	.60	.090	.020	5.1	--	--	140000	25	508	96
JUL 08...	1.2	.75	.050	<.010	--	4.6	1.8	100000	18	304	96
AUG 05...	.91	.42	.240	.120	5.0	--	--	220000	17	129	86
SEP 02...	1.3	.79	.050	<.010	4.8	--	--	110000	8	38	61

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
JAN 14...	1200	2500	2	0	2	100	60	40	2	0	2
MAY 07...	1430	14000	<1	--	<1	100	70	30	1	--	<1
JUL 08...	1410	6260	2	1	1	100	70	30	1	--	<1
SEP 02...	1300	1770	2	1	1	100	0	100	1	0	1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JAN 14...	20	10	10	4	0	4	5	3	2	1500
MAY 07...	10	0	10	2	1	1	10	0	10	1000
JUL 08...	10	0	30	7	5	2	15	6	9	1100
SEP 02...	<10	--	<10	4	3	1	22	11	11	520

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
JAN 14...	990	510	8	2	6	440	0	440	<.1	<.1
MAY 07...	720	280	3	2	1	190	30	160	.1	<.1
JUL 08...	--	<10	10	8	2	280	260	20	.1	<.1
SEP 02...	510	10	7	6	1	250	120	130	.2	<.1

DATE	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
JAN 14...	12	1	11	<1	<1	2	<1	30	10	20
MAY 07...	9	1	8	<1	<1	<1	<1	50	10	40
JUL 08...	12	4	8	<1	<1	<1	<1	40	--	<4
SEP 02...	49	40	9	<1	<1	<1	<1	40	30	10

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 5,80	MAR 4,81	MAY 7,81	JUN 3,81
TIME	1245	1300	1430	1345
TOTAL CELLS/ML	13000	260	9200	140000
DIVERSITY: DIVISION	1.2	0.3	0.5	1.4
.CLASS	1.2	0.3	0.5	1.4
..ORDER	1.7	0.6	1.1	1.7
...FAMILY	1.9	1.7	1.5	2.3
....GENUS	2.1	1.7	1.8	2.8

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	5200	4
...HYDRODICTYACEAE								
....PEDIASTRUM	250	2	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	83	1	--	-	290	3	1900	1
...OOCYSTACEAE								
....ANKISTRODESMUS	170	1	--	-	--	-	2600	2
....CHODATELLA	--	-	--	-	--	-	2600	2
....DICTYOSPHAERIUM	--	-	--	-	--	-	4200	3
....GLOEOACTINIUM	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	*	0
....QUADRIGULA	--	-	--	-	--	-	--	-
....SELENASTRUM	120	1	--	-	140	2	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	25000#	19
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	710	6	--	-	140	2	20000	15
....TETRASTRUM	--	-	--	-	290	3	1300	1
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	13	5	140	2	6500	5
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	1300	10	13	5	6400#	70	20000	15
....STEPHANODISCUS	1200	9	--	-	430	5	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	*	0	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	210	2	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	170#	65	--	-	--	-
....SYNEDRA	*	0	--	-	72	1	*	0
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	26	10	--	-	--	-
...NAVICULACEAE								
....NAVICULA	*	0	26	10	72	1	--	-
...NITZSCHIACEAE								
....NITZSCHIA	*	0	13	5	1000	11	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	7800#	61	--	-	--	-	45000#	33
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....APHANIZOMENON	960	7	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	83	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUL 8,81		AUG 5,81		SEP 2,81	
TIME	1410		1320		1300	
TOTAL CELLS/ML	100000		220000		110000	
DIVERSITY: DIVISION	1.5		1.1		0.4	
.CLASS	1.5		1.1		0.4	
..ORDER	1.7		1.3		0.4	
...FAMILY	2.3		2.4		1.8	
....GENUS	2.8		3.4		2.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	--	-	620	1
...COELASTRACEAE						
....COELASTRUM	4300	4	37000#	17	53000#	47
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	9300	4	*	0
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	1700	2	3100	1	2700	2
....CHODATELLA	--	-	--	-	--	-
....DICTYOSPHAERIUM	10000	10	24000	11	2100	2
....GLOEOACTINIUM	1400	1	--	-	830	1
....KIRCHNERIELLA	*	0	9700	4	5400	5
....OOCYSTIS	710	1	1700	1	--	-
....QUADRIGULA	--	-	1700	1	--	-
....SELENASTRUM	2100	2	*	0	--	-
....TETRAEDRON	1400	1	*	0	--	-
....TREUBARIA	*	0	*	0	--	-
....WESTELLA	--	-	--	-	26000#	23
...SCENEDESMACEAE						
....ACTINASTRUM	--	-	1400	1	--	-
....CRUCIGENIA	--	-	4500	2	--	-
....SCENEDESMUS	16000#	16	26000	12	12000	11
....TETRASTRUM	5700	6	8300	4	830	1
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	6600	3	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	1400	1	--	-	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....COSMARIUM	--	-	--	-	*	0
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	24000#	24	4500	2	*	0
....STEPHANODISCUS	--	-	--	-	*	0
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	*	0	--	-
...NAVICULACEAE						
....NAVICULA	--	-	*	0	--	-
...NITZSCHIACEAE						
....NITZSCHIA	*	0	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	5500	2	7400	7
....ANACYSTIS	31000#	30	25000	11	--	-
....GOMPHOSPHAERIA	--	-	49000#	22	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01541000 WEST BRANCH SUSQUEHANNA RIVER AT BOWER, PA

LOCATION.--Lat 40°53'49", long 78°40'38", Clearfield County, Hydrologic Unit 02050201, on right bank at downstream side of highway bridge at Bower, 4.6 mi (7.4 km) downstream from Chest Creek and Mahaffey.

DRAINAGE AREA.--315 mi² (816 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 726: Drainage area: WSP 1302: 1914-17, 1918(M), 1922-23, 1924(M), 1925-29, 1930-31(M), 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 1,207,14 ft (367.936 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods which are fair.

AVERAGE DISCHARGE.--68 years, 558 ft³/s (15.80 m³/s), 24.04 in/yr (611 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,500 ft³/s (892 m³/s) Mar. 18, 1936, gage height, 19.74 ft (6.017 m) from floodmark in gage shelter, from rating curve extended above 7,200 ft³/s (204 m³/s) on basis of slope-area measurement of peak flow; minimum, 14 ft³/s (0.40 m³/s) Aug. 29, 1939; minimum daily, 16 ft³/s (0.45 m³/s) Sept. 29, Oct. 1, 6, 13, 1930, Aug. 29, Aug. 31 to Sept. 2, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1913, about 18.5 ft (5.64 m) May 13, 1889, discharge, about 27,000 ft³/s (760 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,400 ft³/s (125 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 12	0200	ice jam		10.24	3.121	Feb. 21	1200	*8,820	250	*12.39	3.776
Feb. 18	1830	ice jam		12.18	3.712						

Minimum discharge, 68 ft³/s (1.925 m³/s) Aug. 29, 30, gage height, 4.18 ft (1.274 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	191	486	160	170	1060	627	1370	266	330	278	139
2	117	171	765	158	450	852	663	987	336	289	236	134
3	118	158	1220	150	800	733	567	753	524	305	211	169
4	125	155	820	128	540	608	509	610	2310	255	243	592
5	121	148	672	110	400	600	494	528	923	232	199	394
6	108	136	582	112	450	557	470	483	673	342	169	219
7	104	127	562	120	540	484	407	451	562	242	177	159
8	103	207	583	123	500	439	373	380	421	204	267	246
9	100	303	632	115	450	404	358	333	886	181	178	362
10	99	517	1330	118	400	401	336	303	689	168	150	211
11	122	341	925	125	800	410	317	438	530	154	141	157
12	103	262	760	113	1200	395	1140	1320	411	149	149	136
13	97	231	680	102	900	497	1850	801	348	142	132	132
14	93	216	581	104	720	573	2460	621	547	134	121	124
15	95	203	443	121	620	484	2190	1700	752	125	121	353
16	95	192	360	126	640	649	1480	1330	474	116	132	234
17	91	179	280	126	1500	670	1190	987	548	117	135	192
18	86	198	230	113	3500	531	1070	771	412	112	116	162
19	89	206	250	117	2790	519	802	635	330	108	105	132
20	88	178	195	122	5720	479	690	537	283	892	98	120
21	85	169	162	130	8050	453	568	458	295	1300	93	108
22	86	176	150	150	4430	418	500	394	730	838	91	106
23	87	181	140	164	2990	477	560	349	672	425	90	118
24	86	647	180	164	3010	523	872	312	404	291	84	101
25	747	1570	177	140	2060	485	700	282	679	239	80	91
26	1360	988	160	200	1480	461	583	256	1960	335	80	88
27	504	720	150	380	1130	606	527	242	846	593	77	86
28	360	640	140	450	1040	642	576	232	591	439	74	86
29	296	570	170	350	---	570	2710	303	453	873	72	78
30	234	489	180	200	---	624	2170	312	371	524	85	74
31	210	---	170	160	---	740	---	379	---	361	191	---
TOTAL	6128	10469	14135	4951	47280	17344	27759	18857	19226	10815	4375	5303
MEAN	198	349	456	160	1689	559	925	608	641	349	141	177
MAX	1360	1570	1330	450	8050	1060	2710	1700	2310	1300	278	592
MIN	85	127	140	102	170	395	317	232	266	108	72	74
CFSM	.63	1.11	1.45	.51	5.36	1.78	2.94	1.93	2.04	1.11	.45	.56
IN.	.72	1.24	1.67	.58	5.58	2.05	3.28	2.23	2.27	1.28	.52	.63

CAL YR 1980 TOTAL 196493 MEAN 537 MAX 4570 MIN 85 CFSM 1.71 IN 23.20
WTR YR 1981 TOTAL 186642 MEAN 511 MAX 8050 MIN 72 CFSM 1.62 IN 22.04

01541000 WEST BRANCH SUSQUEHANNA RIVER AT BOWER, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to August 1981 (discontinued).

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, OCTOBER 1980 TO AUGUST 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG°C)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
MAR									
24...	0930	5.5	320	7.0	4.0	18	100	197	.27
AUG									
11...	1310	138	499	7.9	23.5	38	160	344	.47

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAR									
24...	2.9	1400	1300	140	500	0	500	30	.45
AUG									
11...	128	3200	3200	40	280	120	160	21	7.8

01541200 WEST BRANCH SUSQUEHANNA RIVER AT CURWENSVILLE, PA

LOCATION.--Lat 40°57'41", long 78°31'10", Clearfield County, Hydrologic Unit 02050201, on left bank 30 ft (9 m) downstream from bridge on State Highway 453, 0.85 mi (1.37 km) downstream from Curwensville Lake, 1.1 mi (1.8 km) south of Curwensville and 1.8 mi (2.9 km) upstream from Anderson Creek.

DRAINAGE AREA.--367 mi^2 (951 km^2).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,124.52 ft (342.754 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 24, 1956, nonrecording gage and crest-stage gage 30 ft (9 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since November 1965 by Curwensville Lake (station 01541180) 0.85 mi (1.36 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 656 ft^3/s (18.58 m^3/s), 24.31 in/yr (617 mm/yr), adjusted for storage since November 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft^3/s (445 m^3/s) Mar. 10, 1964, gage height, 14.19 ft (4.325 m); no flow at times; minimum daily discharge, 19 ft^3/s (0.54 m^3/s) Aug. 16, 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,170 ft^3/s (146 m^3/s) Feb. 23, gage height, 8.02 ft (2.444 m); minimum daily discharge, 57 ft^3/s (1.61 m^3/s) Aug. 23, 26, 27, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	227	932	293	224	3820	984	2260	504	391	376	265
2	142	227	853	275	473	3500	872	1490	423	382	281	179
3	142	227	1150	274	1160	3150	853	1040	469	375	225	179
4	142	227	1290	252	1190	2750	720	799	1830	382	227	503
5	142	223	1040	194	761	1160	630	562	1900	347	228	629
6	135	225	846	170	623	697	522	312	1040	269	223	284
7	121	227	680	193	599	654	433	244	656	273	225	211
8	121	223	657	253	553	583	368	343	573	236	223	177
9	121	220	736	261	487	510	430	361	907	152	224	312
10	121	427	1060	244	410	504	404	379	1160	177	223	313
11	124	550	1190	233	501	521	376	649	614	193	219	215
12	123	504	1140	220	1360	530	620	1160	486	184	199	176
13	123	376	896	193	1840	565	1790	1370	437	170	161	164
14	123	374	738	197	1070	676	2580	1010	715	146	141	154
15	123	369	541	206	914	652	2910	1410	1130	146	142	283
16	123	367	487	231	757	648	2200	2020	766	145	140	336
17	123	366	500	249	1190	777	1660	1480	576	142	140	234
18	123	358	486	246	1430	829	1360	1050	637	137	138	199
19	123	354	453	216	1920	763	1060	858	564	119	138	180
20	123	359	326	207	1700	676	828	707	446	610	121	165
21	123	348	107	197	930	683	730	578	429	1800	113	135
22	123	344	217	193	3780	692	618	557	757	840	92	100
23	123	335	289	195	4180	679	576	499	792	612	57	101
24	123	343	407	203	1260	716	784	427	574	321	58	101
25	355	452	344	212	3330	644	929	370	481	247	58	101
26	1170	846	271	212	4420	579	684	348	1940	298	57	101
27	1170	1370	271	204	4350	628	548	318	1480	702	57	101
28	626	1280	274	338	3940	727	559	323	916	529	58	115
29	438	1140	277	380	---	758	1870	355	502	818	57	124
30	305	1090	283	370	---	801	3260	375	405	858	60	124
31	230	---	291	257	---	882	---	463	---	482	168	---
TOTAL	7347	13978	19032	7368	45352	31754	32158	24117	24109	12483	4829	6261
MEAN	237	466	614	238	1620	1024	1072	778	804	403	156	209
MAX	1170	1370	1290	380	4420	3820	3260	2260	1940	1800	376	629
MIN	121	220	107	170	224	504	368	244	405	119	57	100
MEAN‡	231	412	594	236	1963	724	1106	816	797	407	158	205
CFSM‡	.63	1.12	1.62	.64	5.35	1.97	3.01	2.22	2.17	1.11	.43	.56
IN.‡	.73	1.25	1.87	.74	5.57	2.27	3.36	2.56	2.42	1.28	.50	.62

CAL YR 1980 TOTAL 236679 MEAN 647 MAX 3600 MIN 107 MEAN‡ 647 CFSM‡ 1.76 IN.‡ 24.00
WTR YR 1981 TOTAL 228788 MEAN 627 MAX 4420 MIN 57 MEAN‡ 627 CFSM‡ 1.71 IN.‡ 23.17

‡Adjusted for change in contents in Curwensville Lake.

01541303 WEST BRANCH SUSQUEHANNA RIVER AT HYDE, PA

LOCATION.--Lat 41°00'16", long 78°27'25", Clearfield County, Hydrologic Unit 02050201, on right bank 60 ft (18 m) downstream from bridge on Legislative Route 17098, at intersection with State Highway 879.

DRAINAGE AREA.--474 mi^2 (1,228 km^2).

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,093.90 ft (333.421 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since November 1965 by Curwensville Lake (station 01541180) located about 5.0 mi (8.0 km) upstream. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,250 ft^3/s (205 m^3/s) March 7, 1979, gage height, 10.14 ft (3.091 m) from rating curve extended above 6,000 ft^3/s (170 m^3/s); maximum gage height, 11.45 ft (3.490 m) Feb. 18, 1981, (backwater from ice); minimum daily discharge, 94 ft^3/s (2.66 m^3/s) Aug. 24, 26, 27, 28, 29, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 10, 1964, reached a stage of 18.1 ft (5.52 m), from floodmarks, discharge, 19,400 ft^3/s (549 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,160 ft^3/s (174 m^3/s) Feb. 20, gage height, 9.93 ft (3.027 m); maximum gage height, 11.45 ft (3.490 m) Feb. 18, (backwater from ice); minimum daily discharge, 94 ft^3/s (2.66 m^3/s) Aug. 24, 26, 27, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	269	1140	380	290	4150	1120	2960	453	559	479	369
2	148	267	1110	350	675	3840	1130	2040	504	627	367	225
3	147	262	1610	340	1500	3500	1080	1510	580	555	276	240
4	147	256	1650	325	1520	3080	970	1180	2030	522	271	534
5	146	254	1390	250	970	1780	827	864	2310	476	268	914
6	143	247	1140	220	800	917	765	570	1350	395	266	409
7	120	243	936	250	760	877	653	455	831	376	265	275
8	118	265	907	330	700	777	496	537	743	344	264	261
9	119	286	978	335	620	682	597	519	1450	216	257	367
10	119	484	1390	310	520	641	573	509	1860	225	255	435
11	151	657	1490	300	640	647	518	1080	1100	243	254	291
12	127	613	1420	280	1740	633	707	2030	830	239	247	227
13	123	437	1190	250	2400	643	1920	1980	709	227	203	215
14	122	431	983	252	1360	760	2980	1530	1220	186	161	195
15	126	427	797	265	1130	792	3390	2280	2850	181	162	265
16	122	418	667	295	970	802	2660	2630	1880	176	163	492
17	121	413	643	320	1540	867	2060	1990	1640	173	162	299
18	121	413	612	320	1980	940	1770	1490	1310	160	160	271
19	118	404	567	280	2940	866	1420	1220	1080	153	154	227
20	118	392	430	265	4500	723	1160	997	822	688	138	213
21	117	381	138	250	3140	687	1010	806	726	2350	124	187
22	109	380	285	248	4700	671	855	745	1190	1160	133	130
23	112	374	370	252	5430	647	825	654	1390	879	100	125
24	119	444	525	268	2130	655	1100	563	951	463	94	125
25	485	679	430	275	3790	690	1240	472	912	329	96	122
26	1490	997	340	270	4740	685	952	437	2530	401	94	121
27	1430	1610	340	262	4650	765	775	381	2020	853	94	119
28	826	1510	340	435	4400	889	917	375	1360	754	94	124
29	534	1340	340	425	---	908	3230	408	837	961	94	142
30	407	1270	345	410	---	951	4250	410	642	1070	100	143
31	273	---	360	335	---	1050	---	471	---	643	148	---
TOTAL	8506	16423	24863	9347	60535	36515	41950	34093	38110	16584	5943	8062
MEAN	274	547	802	302	2162	1178	1398	1100	1270	535	192	269
MAX	1490	1610	1650	435	5430	4150	4250	2960	2850	2350	479	914
MIN	109	243	138	220	290	633	496	375	453	153	94	119
MEAN‡	268	493	782	300	2505	878	1432	1138	1263	539	194	265
CFSM‡	.57	1.04	1.65	.63	5.28	1.85	3.02	2.40	2.66	1.14	.41	.56
IN.‡	.66	1.16	1.90	.73	5.50	2.13	3.37	2.77	2.97	1.31	.47	.62

CAL YR 1980 TOTAL 302145 MEAN 826 MAX 4440 MIN 106 MEAN‡ 826 CFSM‡ 1.74 IN.‡ 23.73
WTR YR 1981 TOTAL 300931 MEAN 824 MAX 5430 MIN 94 MEAN‡ 824 CFSM‡ 1.74 IN.‡ 23.59

‡Adjusted for change in contents in Curwensville Lake.

01541500 CLEARFIELD CREEK AT DIMELING, PA

LOCATION.--Lat 40°58'18", long 78°24'22", Clearfield County, Hydrologic Unit 02050201, on right bank at downstream side of highway bridge at Dimeling, 600 ft (180 m) downstream from Little Clearfield Creek, and 4 mi (6 km) southeast of Clearfield.

DRAINAGE AREA.--371 mi^2 (961 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 891: 1936-39. WSP 1302: 1915-17, 1918-19(M). WSP 1502: 1939.

GAGE.--Water-stage recorder. Datum of gage is 1,146.08 ft (349.325 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1928, nonrecording gage and Oct. 17, 1928 to Oct. 25, 1967, water-stage recorder at site 200 ft (61 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since December 1960 by Glendale Lake (station 01541340) about 25 mi (40 km) upstream.

AVERAGE DISCHARGE.--68 years, 580 ft^3/s (16.43 m^3/s), 21.18 in/yr (538 mm/yr), adjusted for storage since December 1960.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft^3/s (867 m^3/s) Mar. 18, 1936, gage height, 18.49 ft (5.636 m), from floodmark in gage shelter, from rating curve extended above 15,000 ft^3/s (425 m^3/s); minimum, 6.0 ft^3/s (0.17 m^3/s) Oct. 1, 9, 1925; minimum daily discharge, 7.1 ft^3/s (0.20 m^3/s) Oct 1, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,450 ft^3/s (239 m^3/s) Feb. 21, gage height, 10.63 ft (3.240 m); minimum daily discharge, 71 ft^3/s (2.01 m^3/s) Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	168	402	170	170	1480	612	1350	307	291	218	109
2	84	151	545	170	325	1250	743	1030	350	302	189	124
3	87	138	856	166	500	1110	620	861	506	284	175	134
4	90	133	669	150	450	971	560	710	1420	263	184	217
5	88	130	532	121	370	941	520	625	915	241	165	246
6	88	122	491	123	310	902	531	573	674	245	146	169
7	83	116	465	135	270	852	449	539	592	228	150	127
8	81	139	575	131	330	813	403	470	482	200	237	124
9	78	210	618	120	320	769	382	416	745	183	175	224
10	76	397	1050	122	280	540	361	381	739	169	141	177
11	85	329	874	118	600	472	347	1140	577	158	130	122
12	81	244	722	104	1000	475	711	3380	477	142	131	107
13	77	216	669	99	540	493	1470	1900	400	133	121	100
14	77	203	619	100	400	538	1960	1380	585	129	115	100
15	78	181	450	111	450	494	2360	1690	1090	121	112	169
16	76	172	400	125	480	509	1680	1380	672	115	113	166
17	75	165	350	127	540	613	1400	1100	583	113	112	187
18	75	286	380	114	660	482	1250	870	477	109	113	151
19	74	369	280	119	760	468	1110	750	390	106	100	118
20	76	344	220	128	3000	439	957	661	344	370	95	107
21	76	337	450	141	8110	424	859	573	335	675	91	100
22	74	345	190	160	6130	404	695	504	466	370	89	98
23	73	342	193	170	4150	425	674	447	495	261	87	99
24	71	417	210	160	4660	456	862	400	368	194	85	97
25	382	1480	198	138	3240	450	727	364	356	171	87	92
26	1240	892	170	150	2370	421	625	338	928	203	84	88
27	478	618	170	300	1830	480	573	315	578	484	82	86
28	305	536	180	265	1560	578	623	304	422	339	80	85
29	258	490	192	240	---	503	2210	313	355	417	79	83
30	215	428	215	200	---	542	1950	354	316	385	88	79
31	185	---	190	163	---	690	---	393	---	269	126	---
TOTAL	4970	10098	13525	4640	43805	19984	28224	25511	16944	7670	3900	3885
MEAN	160	337	436	150	1564	645	941	823	565	247	126	130
MAX	1240	1480	1050	300	8110	1480	2360	3380	1420	675	237	246
MIN	71	116	170	99	170	404	347	304	307	106	79	79
MEAN‡	166	329	414	160	1588	622	966	822	568	240	115	135
CFSM‡	.45	.89	1.12	.43	4.28	1.68	2.60	2.22	1.53	.65	.31	.36
IN.‡	.52	.99	1.29	.50	4.46	1.94	2.90	2.56	1.71	.75	.36	.40

CAL YR 1980 TOTAL 193337 MEAN 528 MAX 4610 MIN 71 MEAN‡ 525 CFSM‡ 1.42 IN.‡ 19.28
WTR YR 1981 TOTAL 183156 MEAN 502 MAX 8110 MIN 71 MEAN‡ 502 CFSM‡ 1.35 IN.‡ 18.38

‡Adjusted for change in contents in Glendale Lake.

01541500 CLEARFIELD CREEK AT DIMELING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG°C)	ACIDITY TOTAL HEATED (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT										
22...	1115	74	610	4.7	7.5	--	--	--	270	468
NOV										
24...	1400	306	335	6.2	2.5	.3	15	21	110	207
DEC										
29...	1245	E79	455	5.0	.5	.8	40	4	190	291
JAN										
27...	1700	263	505	4.8	.5	.6	30	2	210	338
FEB										
24...	1600	4400	182	6.4	4.5	.4	20	6	56	117
APR										
21...	1420	852	265	6.3	10.5	.4	20	11	94	175
MAY										
19...	1130	768	299	6.0	10.5	.2	10	7	100	214
JUN										
16...	1630	616	280	6.8	22.0	.2	10	20	94	184
JUL										
15...	0800	132	600	4.0	20.0	1.0	50	--	210	406
SEP										
16...	1120	163	415	6.2	18.0	.3	15	17	200	305

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT										
22...	.64	93.5	600	190	410	4100	0	4100	1	.20
NOV										
24...	.28	171	1600	990	610	1300	100	1200	13	11
DEC										
29...	.40	--	3000	200	2800	2400	0	2600	9	--
JAN										
27...	.46	240	4300	3700	580	2900	0	3300	17	12
FEB										
24...	.16	1390	2300	2000	310	850	50	800	69	820
APR										
21...	.24	403	1400	920	480	750	60	690	10	23
MAY										
19...	.29	444	1100	580	520	810	60	750	11	23
JUN										
16...	.25	306	770	590	180	820	30	790	61	101
JUL										
15...	.55	145	330	110	220	4000	100	3900	2	.71
SEP										
16...	.41	134	1400	1300	90	2400	0	2500	35	15

01542000 MOSHANNON CREEK AT OSCEOLA MILLS, PA

LOCATION.--Lat 40°50'58", long 78°16'05", Clearfield County, Hydrologic Unit 02050201, on left bank 10 ft (3.0 m) upstream from Penn Central Railroad bridge at Osceola Mills, and 0.1 mi (0.2 km) downstream from Trout Run.

DRAINAGE AREA.--68.8 mi^2 (178.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1232: 1941-46, 1948, 1950-51, Drainage area.

GAGE,--Water-stage recorder. Datum of gage is 1,446.98 ft (441.040 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--41 years, 112 ft^3/s (3.172 m^3/s), 22.14 in/yr (562 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,120 ft^3/s (145 m^3/s) June 23, 1972, gage height 14.25 ft (4.343 m), from rating curve extended above 1,800 ft^3/s (51 m^3/s) on basis of contracted-opening measurements at gage heights 7.58 ft (2.310 m), 9.00 ft (2.743 m), and at peak flow; minimum, 1.0 ft^3/s (0.028 m^3/s) Jan. 30, 1981, result of freezeup; minimum daily, 3.6 ft^3/s (0.10 m^3/s) Oct. 17, 24, 1980; minimum gage height, 0.14 ft (0.043 m) Oct. 25, 26, 27, 28, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s (17.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1000	ice jam		3.37	1.027	Feb. 23	2215	1,350	38.2	5.52	1.682
Feb. 21	1000	*1,670	47.3	*6.39	1.948	May 11	2115	1,000	28.3	4.51	1.375

Minimum discharge, 1.0 ft^3/s (0.028 m^3/s) Jan. 30, gage height, 0.15 ft (0.046 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	26	71	25	7.4	288	116	226	76	76	50	26
2	9.6	24	94	24	15	255	138	212	116	106	47	27
3	9.6	24	110	22	20	214	122	190	129	110	45	30
4	10	24	90	21	17	198	123	172	184	83	46	40
5	8.1	22	86	21	15	198	128	161	120	80	42	30
6	6.7	21	82	22	14	166	122	161	117	76	39	22
7	7.4	21	86	29	16	141	110	152	107	66	40	20
8	6.4	35	88	37	23	131	107	137	98	57	45	53
9	6.0	48	94	23	25	124	104	127	168	54	35	47
10	5.6	50	123	24	20	122	98	128	134	52	33	26
11	6.8	34	95	20	300	118	100	466	115	52	33	24
12	5.2	28	90	15	230	113	164	718	96	50	34	23
13	5.3	27	91	11	170	118	183	472	88	50	28	22
14	5.2	26	81	10	130	107	294	364	150	48	29	24
15	5.3	25	74	14	110	97	305	290	301	43	31	43
16	4.0	23	68	13	100	112	275	240	153	42	32	34
17	3.6	20	61	10	110	98	257	210	141	41	28	26
18	4.4	29	54	8.6	200	90	229	190	117	38	26	24
19	5.4	26	52	9.0	275	88	194	170	106	48	25	24
20	4.4	23	47	12	898	86	174	150	105	250	24	24
21	4.3	22	46	13	1510	88	156	130	117	99	23	23
22	4.2	24	39	12	983	88	145	120	148	63	24	26
23	4.0	24	37	11	933	93	171	110	117	48	22	27
24	3.6	116	40	10	1020	86	189	100	94	46	23	23
25	178	130	36	8.0	689	78	153	94	140	90	26	21
26	142	77	31	9.0	480	72	136	90	154	150	22	23
27	58	66	30	13	370	86	132	83	103	160	22	23
28	47	68	29	11	329	78	157	77	90	113	23	21
29	37	67	29	9.0	---	75	332	84	82	130	22	22
30	31	60	30	8.2	---	93	256	78	79	75	26	24
31	28	---	27	7.6	---	102	---	100	---	56	36	---
TOTAL	665.1	1210	2011	482.4	9009.4	3803	5170	6002	3745	2452	981	822
MEAN	21.5	40.3	64.9	15.6	322	123	172	194	125	79.1	31.6	27.4
MAX	178	130	123	37	1510	288	332	718	301	250	50	53
MIN	3.6	20	27	7.6	7.4	72	98	77	76	38	22	20
CFSM	.31	.59	.94	.23	4.68	1.79	2.50	2.82	1.82	1.15	.46	.40
IN.	.36	.65	1.09	.26	4.87	2.06	2.80	3.25	2.02	1.33	.53	.44

CAL YR 1980 TOTAL 33735.1 MEAN 92.2 MAX 868 MIN 3.6 CFSM 1.34 IN 18.24
WTR YR 1981 TOTAL 36352.9 MEAN 99.6 MAX 1510 MIN 3.6 CFSM 1.45 IN 19.66

01542000 MOSHANNON CREEK AT OSCEOLA MILLS, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to September 1981 (discontinued).

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
MAR 25...	1750	77	545	3.8	6.0	1.3	65	240	363	.49
JUL 15...	1130	37	900	3.6	17.5	2.0	99	370	616	.84
AUG 17...	1145	28	910	3.6	16.0	2.2	109	400	668	.91
SEP 15...	1900	51	810	3.4	17.0	1.4	70	370	609	.83

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 25...	75.5	8700	1200	7500	3800	0	3800	25	5.2
JUL 15...	62.7	10000	700	9300	7300	100	7200	22	2.2
AUG 17...	50.5	8500	1300	7200	6900	0	7500	19	1.4
SEP 15...	83.9	11000	2700	8300	7400	0	7400	23	3.2

01542500 WEST BRANCH SUSQUEHANNA RIVER AT KARTHAUS, PA

LOCATION.--Lat 41°07'03", long 78°06'33", Clearfield County, Hydrologic Unit 02050201, on left bank 900 ft (270 m) upstream from bridge on State Highway 879 at Karthaus, 1,000 ft (300 m) upstream from Mosquito Creek, and 3.3 mi (5.3 km) downstream from Moshannon Creek. Records include flow of Mosquito Creek.

DRAINAGE AREA.--1,462 mi² (3,787 km²), includes that of Mosquito Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1940 to current year. October 1918 to September 1920 (gage heights only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Water-stage recorder. Datum of gage is 830.59 ft (253.164 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1920, nonrecording gage at site 900 ft (270 m) downstream at datum 20.88 ft (6.364 m) lower. Feb. 21 to Sept. 30, 1940, nonrecording gage at site 900 ft (270 m) downstream at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Curwensville Lake (station 01541180) about 50 mi (80 km) upstream and by Glendale Lake (station 01541340). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 2,504 ft³/s (70.91 m³/s), 23.22 in/yr (590 mm/yr), adjusted for storage since December 1960.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,300 ft³/s (2,390 m³/s) June 23, 1972, gage height 18.57 ft (5.660 m), from rating curve extended above 50,000 ft³/s (1,400 m³/s); minimum, 100 ft³/s (2.83 m³/s) Sept. 26, 27, 1964, gage height, 0.43 ft (0.131 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 24.5 ft (7.47 m) Mar. 18, 1936, from floodmarks at highway bridge, discharge, about 135,000 ft³/s (3,820 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,400 ft³/s (691 m³/s) Feb. 23, gage height, 10.10 ft (3.078 m); minimum daily, 279 ft³/s (7.90 m³/s) Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	335	691	2180	868	690	8310	2520	7410	1440	1970	1410	479
2	331	645	2150	841	707	7440	2720	5650	1470	2080	1210	695
3	335	614	3290	776	1440	6650	2760	4510	1780	2190	1050	635
4	357	593	3530	689	2480	5870	2560	3680	3110	1890	908	741
5	356	582	3070	627	2170	5200	2390	3120	5230	1760	897	1490
6	340	558	2570	707	1570	3130	2260	2710	3460	1630	835	1200
7	333	540	2330	772	1380	2960	2100	2240	2510	1480	805	842
8	310	572	2220	726	1340	2670	1840	2150	2130	1340	803	820
9	292	665	2320	761	1230	2470	1730	1960	4020	1210	859	885
10	284	887	2880	881	1120	2280	1740	1830	5390	1020	760	926
11	344	1270	3430	842	1930	2050	1650	5320	4070	945	696	858
12	407	1210	3040	600	3460	1980	1840	11800	3070	914	696	666
13	332	1050	2830	500	4760	1960	3130	8640	2540	865	657	558
14	302	885	2450	540	4150	2010	5740	6600	2940	826	589	521
15	298	862	2080	600	3290	2060	7910	6860	10000	738	531	508
16	306	816	1830	590	2930	2020	6970	7160	7920	697	538	664
17	299	798	1790	580	3100	2090	5560	5740	6730	672	520	859
18	292	798	1640	580	5200	2120	5040	4650	5180	644	484	682
19	287	955	1660	590	7290	2030	4300	3830	4070	602	466	624
20	282	1010	1210	625	17800	1920	3670	3310	3320	925	466	535
21	280	937	911	590	23400	1790	3190	2790	2860	4140	426	502
22	279	1060	786	570	20400	1720	2820	2490	3130	3490	390	461
23	285	955	892	557	18600	1670	2490	2220	4130	2270	357	428
24	285	1080	1140	535	17700	1680	3090	2020	3240	1690	357	393
25	639	2190	1040	522	13200	1710	3320	1790	2950	1290	334	375
26	3090	2750	899	514	11900	1670	2860	1640	4890	1200	333	341
27	3070	2610	837	582	10300	1720	2490	1520	5240	2110	331	357
28	2030	2740	873	685	9050	1970	2470	1410	3830	2210	321	348
29	1330	2540	898	843	---	2030	11100	1410	2930	2050	316	335
30	1060	2330	935	880	---	2060	10300	1390	2290	2290	321	344
31	847	---	894	762	---	2410	---	1470	---	1940	424	---
TOTAL	19617	35193	58605	20735	192587	87650	112560	119320	115870	49078	19090	19072
MEAN	633	1173	1890	669	6878	2827	3752	3849	3862	1583	616	636
MAX	3090	2750	3530	881	23400	8310	11100	11800	10000	4140	1410	1490
MIN	279	540	786	500	690	1670	1650	1390	1440	602	316	335
MEAN‡	633	1111	1848	678	7245	2504	3811	3885	3858	1579	607	637
CFSM‡	.43	.76	1.26	.46	4.96	1.71	2.61	2.66	2.64	1.08	.42	.44
IN.‡	.50	.85	1.45	.53	5.16	1.97	2.91	3.07	2.95	1.25	.48	.49

CAL YR 1980 TOTAL 772731 MEAN 2111 MAX 15400 MEAN‡ 2108 CFSM‡ 1.44 IN.‡ 19.61
WTR YR 1981 TOTAL 849377 MEAN 2327 MAX 23400 MEAN‡ 2326 CFSM‡ 1.59 IN.‡ 21.61

‡Adjusted for change in contents in Curwensville and Glendale Lakes.

01542500 WEST BRANCH SUSQUEHANNA RIVER AT KARTHAUS, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

COAL-HYDROLOGY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
OCT 22...	1245	277	860	3.4	10.5	1.4	70	360	583	.79
NOV 24...	1615	1100	535	3.8	6.0	1.0	50	210	334	.45
DEC 29...	1430	930	525	4.0	3.0	1.0	50	200	301	.41
JAN 28...	1230	680	655	3.7	3.5	1.2	60	260	403	.55
FEB 25...	0845	13700	210	4.4	4.5	.6	30	63	128	.17
APR 21...	1545	3100	350	3.9	12.0	.8	40	120	183	.25
MAY 19...	1345	3800	405	3.8	13.0	.9	45	140	249	.34
JUN 17...	0830	7290	263	4.4	20.0	.4	20	92	192	.26
JUL 15...	1915	722	610	3.9	25.5	1.2	60	220	366	.50
SEP 16...	1630	620	750	3.6	22.0	.8	40	300	475	.65

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 22...	436	1400	0	1400	5000	0	5000	3	2.2
NOV 24...	992	1800	0	1800	4000	900	3100	12	36
DEC 29...	756	3300	700	2600	2800	0	2900	6	15
JAN 28...	740	3700	1500	2200	3400	0	3900	8	15
FEB 25...	4740	2600	2200	450	1100	100	1000	50	1850
APR 21...	1530	2900	1400	1500	1600	100	1500	9	75
MAY 19...	2560	4300	2700	1600	2100	100	2000	13	133
JUN 17...	3780	2300	2000	310	1800	0	1800	32	630
JUL 15...	713	980	400	580	3700	100	3600	3	5.8
SEP 16...	795	2200	1500	740	4300	0	4400	1	1.7

01542810 WALDY RUN NEAR EMPORIUM, PA

LOCATION.--Lat 41°34'44", long 78°17'34", Cameron County, Hydrologic Unit 02050202, on left bank 15 ft (4.6 m) downstream from highway bridge at North Creek Chapel, 0.1 mi (0.2 km) upstream from mouth, and 5.5 mi (8.8 km) northwest of Emporium.

DRAINAGE AREA.--5.24 mi² (13.57 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum water years 1963-64. August 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,263.62 ft (385.151 m) National Geodetic Vertical Datum of 1929. July 25, 1963 to Aug. 27, 1964, crest-stage gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, 8.64 ft³/s (0.245 m³/s), 22.41 in/yr (569 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 828 ft³/s (23.4 m³/s) Sept. 28, 1967, gage height, 6.32 ft (1.926 m), from rating curve extended above 80 ft³/s (2.3 m³/s) on basis of slope-area measurements at gage heights, 5.09 ft (1.551 m), 5.86 ft (1.786 m), and at peak flow; no flow Sept. 14-19, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	Unknown	ice-jam		4.62	1.408	May 11	2200	216	6.12	4.88	1.487
Feb. 20	1030	ice-jam		*5.56	1.695	May 15	0445	198	5.61	4.81	1.466
Apr. 29	0415	*262	7.99	5.10	1.554						

Minimum discharge, 0.20 ft³/s (0.006 m³/s) Oct. 10, 11, gage height, 3.21 ft (0.978 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	1.3	3.8	1.5	1.0	7.2	14	34	1.6	1.5	2.0	.70
2	.28	1.2	9.6	1.3	1.8	6.4	12	20	5.1	1.8	1.6	2.2
3	.41	1.0	26	1.1	2.5	5.6	11	14	4.3	2.1	1.6	1.6
4	.38	.98	17	1.0	3.0	5.3	9.4	11	4.8	1.8	1.5	5.7
5	.30	1.0	11	.96	2.5	5.3	8.3	8.7	4.5	2.3	1.2	8.3
6	.24	.88	8.1	.95	2.1	4.6	6.9	7.5	4.0	2.1	.94	6.6
7	.29	.80	6.9	1.1	1.9	4.0	5.8	6.0	3.2	1.8	.91	5.1
8	.31	1.2	8.2	1.0	2.0	3.4	5.3	5.0	2.7	1.5	34	9.2
9	.25	1.6	13	.90	2.2	3.1	5.6	4.4	6.7	1.2	16	13
10	.22	2.5	16	.84	2.0	3.1	4.8	4.3	5.2	1.1	8.2	8.4
11	.51	2.3	15	.84	15	3.4	5.8	87	4.4	.86	5.5	5.5
12	.49	2.1	11	.73	15	3.1	6.8	137	3.5	.77	3.9	4.0
13	.37	1.9	9.2	.70	10	3.4	16	51	2.9	.73	2.9	3.0
14	.37	1.8	7.0	.73	6.1	3.1	26	38	3.7	.71	2.4	2.7
15	.37	1.6	6.0	.79	4.5	4.4	31	145	3.6	.61	2.3	2.3
16	.37	1.4	5.0	.76	3.5	4.1	23	52	3.2	.61	2.1	1.9
17	.31	1.0	4.0	.74	6.0	3.9	19	25	3.7	.59	1.6	2.0
18	.38	1.2	3.5	.70	15	4.3	19	15	3.0	.55	1.4	1.5
19	.70	1.5	3.0	.72	45	4.6	18	11	2.8	.55	1.2	1.3
20	.41	1.2	3.5	.75	120	3.2	15	7.9	2.7	3.5	1.1	1.5
21	.36	1.0	3.0	.77	72	3.0	11	6.0	2.5	4.8	.94	1.2
22	.35	1.2	2.6	.76	43	2.5	8.7	4.9	2.4	3.2	.85	1.6
23	.29	1.2	2.3	.72	44	2.7	12	4.1	1.9	2.2	.76	1.3
24	.25	3.4	2.8	.68	67	2.5	19	3.6	1.6	1.6	.76	1.0
25	6.2	8.4	2.3	.66	30	2.4	20	3.7	1.9	1.3	.72	.87
26	9.1	7.7	2.0	.65	15	2.3	16	3.2	1.7	1.2	.65	.87
27	3.9	6.3	1.7	.68	11	3.6	13	2.7	1.9	1.1	.61	.86
28	2.5	5.7	1.5	.73	9.0	3.7	42	2.5	1.7	3.0	.85	.86
29	2.2	5.0	1.5	.68	---	4.5	204	2.4	1.6	6.4	.81	.74
30	1.7	4.2	1.9	.67	---	7.2	76	2.1	1.5	4.0	.78	.68
31	1.5	---	1.7	.66	---	12	---	1.9	---	2.7	.89	---
TOTAL	35.54	72.56	210.1	25.77	552.1	131.9	684.4	720.9	94.3	58.18	100.97	96.48
MEAN	1.15	2.42	6.78	.83	19.7	4.25	22.8	23.3	3.14	1.88	3.26	3.22
MAX	9.1	8.4	26	1.5	120	12	204	145	6.7	6.4	34	13
MIN	.22	.80	1.5	.65	1.0	2.3	4.8	1.9	1.5	.55	.61	.68
CFSM	.22	.46	1.29	.16	3.76	.81	4.35	4.45	.60	.36	.62	.62
IN.	.25	.52	1.49	.18	3.92	.94	4.86	5.12	.67	.41	.72	.68

CAL YR 1980 TOTAL 2384.99 MEAN 6.52 MAX 68 MIN .02 CFSM 1.24 IN 16.93
WTR YR 1981 TOTAL 2783.20 MEAN 7.63 MAX 204 MIN .22 CFSM 1.46 IN 19.75

01543000 DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN, PA

LOCATION.--Lat 41°24'48", long 78°11'50", Cameron County, Hydrologic Unit 02050202, on downstream side of second pier from left bank of highway bridge at village of Sterling Run and 300 ft (90 m) upstream from Sterling Run.

DRAINAGE AREA.--272 mi^2 (704 km^2).

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1272: Drainage area. WSP 1502: 1933(M), 1934-38, 1939(M).

GAGE.--Water-stage recorder. Datum of gage is 894.84 ft (272.747 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1913 to Sept. 30, 1931, nonrecording gage and Oct. 1, 1931 to Sept. 30, 1932, water-stage recorder at present site and datum. Oct. 1, 1932 to Sept. 30, 1942, nonrecording gage at site 800 ft (240 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--68 years, 448 ft^3/s (12.69 m^3/s), 22.41 in/yr (569 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,800 ft^3/s (1,350 m^3/s) July 18, 1942, gage height, 14.70 ft (4.481 m), from floodmarks at highway bridge, from rating curve extended above 11,000 ft^3/s (310 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 0.4 ft^3/s (0.011 m^3/s) Sept. 7, 12-14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,700 ft^3/s (133 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	1400	*13,100	371	*7.68	2.341	May 11	2200	6,050	171	5.03	1.533
Feb. 23	2230	4,760	135	4.39	1.338	May 15	0500	5,110	145	4.57	1.393
April 29	1030	8,300	235	6.00	1.829						

Minimum daily discharge, 14 ft^3/s (0.396 m^3/s) Oct. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	110	260	130	100	601	516	1920	125	177	226	48
2	15	96	400	120	130	495	556	1300	298	135	176	76
3	23	88	1010	100	200	420	506	982	300	183	148	163
4	32	80	796	90	260	356	486	796	305	142	143	215
5	25	86	636	91	230	344	454	658	262	135	117	404
6	23	80	506	117	200	311	406	585	237	174	93	359
7	20	70	423	115	190	267	366	493	222	127	78	285
8	21	92	473	110	200	242	340	412	176	98	669	328
9	18	130	548	104	220	226	329	366	644	81	434	462
10	21	298	658	90	200	217	318	334	522	77	323	361
11	42	233	614	84	350	216	308	1980	414	63	253	292
12	45	180	548	81	700	205	345	4550	336	53	221	236
13	38	150	493	81	860	195	500	2290	283	45	169	195
14	32	140	412	80	740	165	711	1350	301	42	147	164
15	29	130	361	86	600	150	844	4160	348	35	129	153
16	26	120	290	90	500	180	796	2050	281	31	142	129
17	22	110	240	92	500	170	742	1170	338	28	110	119
18	23	125	200	90	720	163	742	844	283	27	84	104
19	23	120	170	86	2900	220	673	682	244	25	71	87
20	20	102	150	85	9000	192	614	564	252	72	61	83
21	17	94	130	85	6600	186	527	461	279	260	53	80
22	14	100	125	83	2970	175	466	384	310	216	48	72
23	14	94	120	82	2750	170	493	329	267	105	42	87
24	17	110	120	80	3670	168	621	286	217	68	38	69
25	458	418	140	79	2060	163	621	252	191	54	37	56
26	726	378	135	84	1270	153	585	260	186	53	34	50
27	313	340	130	100	840	208	534	219	147	101	31	46
28	233	334	120	120	710	223	804	195	124	83	29	45
29	180	329	120	120	---	215	5850	187	105	1060	43	44
30	150	283	125	98	---	279	3280	168	94	432	40	41
31	130	---	130	80	---	483	---	151	---	306	58	---
TOTAL	2765	5020	10583	2933	39670	7758	24333	30378	8091	4488	4247	4853
MEAN	89.2	167	341	94.6	1417	250	811	980	270	145	137	162
MAX	726	418	1010	130	9000	601	5850	4550	644	1060	669	462
MIN	14	70	120	79	100	150	308	151	94	25	29	41
CFSM	.33	.61	1.25	.35	5.21	.92	2.98	3.60	.99	.53	.50	.60
IN.	.38	.69	1.45	.40	5.43	1.06	3.33	4.15	1.11	.61	.58	.66

CAL YR 1980 TOTAL 122882 MEAN 336 MAX 2990 MIN 14 CFSM 1.24 IN 16.81
WTR YR 1981 TOTAL 145119 MEAN 398 MAX 9000 MIN 14 CFSM 1.46 IN 19.85

01543500 SINNEMAHONING CREEK AT SINNEMAHONING, PA

LOCATION.--Lat 41°19'02", long 78°06'12", Cameron County, Hydrologic Unit 02050202, on left bank 0.2 mi (0.3 km) upstream from Grove Run and 0.7 mi (1.1 km) upstream from Penn Central Railroad bridge at Sinnemahoning.

DRAINAGE AREA.--685 mi^2 (1,774 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 769.36 ft (234.501 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--43 years, 1,130 ft^3/s (32.00 m^3/s), 22.41 in/yr (569 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,800 ft^3/s (1,720 m^3/s) June 23, 1972, gage height, 21.78 ft (6.639 m), from rating curve extended above 31,000 ft^3/s (878 m^3/s) on basis of slope-area measurement at gage height, 21.58 ft (6.578 m); minimum discharge, 1.2 ft^3/s (0.034 m^3/s) Sept. 4, 1939, gage height, 1.18 ft (0.360 m); minimum daily discharge, 1.4 ft^3/s (0.040 m^3/s) Sept. 3, 1939.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage known, 21.94 ft (6.687 m) Mar. 18, 1936, from floodmark, discharge, 61,200 ft^3/s (1,730 m^3/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,400 ft^3/s (238 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 12	1800	ice jam		9.45	2.880	May 12	0130	16,300	462	10.00	3.048
Feb. 18	1530	ice jam		*15.47	4.715	May 15	0730	11,900	337	8.50	2.591
Feb. 20	1430	*20,900	592	11.44	3.487	June 9	1330	8,920	253	7.31	2.228
Apr. 29	1030	15,600	442	9.78	2.981						

Minimum discharge, 40 ft^3/s (1.13 m^3/s) Oct. 1, 2, gage height, 1.72 ft (0.524 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	232	528	270	190	2050	1400	6070	357	486	454	118
2	43	212	736	250	250	1670	1530	4020	646	457	352	136
3	48	189	2270	230	400	1420	1380	2800	846	551	298	335
4	64	175	1800	200	500	1180	1270	2120	1010	438	313	428
5	61	180	1490	200	450	1140	1200	1700	765	409	261	1230
6	55	166	1240	212	410	1040	1090	1490	663	510	219	746
7	53	151	1020	209	400	897	922	1290	609	385	191	556
8	54	234	1090	200	423	800	831	1040	483	305	956	538
9	55	363	1180	180	450	722	815	890	4750	260	768	1040
10	46	587	1470	170	430	676	813	806	3970	234	484	696
11	53	480	1390	160	700	665	769	4080	2540	204	366	509
12	75	388	1240	152	1500	626	998	13500	1690	180	336	401
13	88	337	1140	152	2200	652	1310	7540	1240	165	259	329
14	71	307	989	150	2100	646	1870	4800	1370	154	224	287
15	65	289	761	160	1800	551	2530	9790	4270	140	205	315
16	58	260	640	170	1400	616	2380	7010	3130	126	216	276
17	56	244	560	170	1400	551	2270	4500	2650	120	196	250
18	55	294	500	165	2000	486	2250	3090	1790	113	156	245
19	61	284	495	160	3000	534	1860	2310	1350	105	131	202
20	82	233	345	162	16600	526	1660	1800	1150	171	116	188
21	71	207	300	160	15000	509	1400	1410	1170	865	104	189
22	59	224	275	157	12000	477	1190	1150	1600	688	95	179
23	56	205	260	152	10000	456	1260	954	1850	349	88	195
24	50	240	260	152	7900	463	1910	811	1220	231	81	172
25	431	826	300	150	5880	445	1830	708	1010	189	79	144
26	2030	832	280	160	3960	422	1650	678	1200	185	76	129
27	733	685	260	180	2830	509	1500	581	839	254	71	122
28	462	661	250	212	2340	607	1940	524	663	212	68	117
29	389	671	250	210	---	565	13800	511	546	2280	77	111
30	309	585	260	190	---	667	10300	455	465	1100	87	105
31	260	---	270	170	---	1320	---	409	---	654	95	---
TOTAL	6038	10741	23849	5615	96513	23888	65928	88837	45842	12520	7422	10288
MEAN	195	358	769	181	3447	771	2198	2866	1528	404	239	343
MAX	2030	832	2270	270	16600	2050	13800	13500	4750	2280	956	1230
MIN	43	151	250	150	190	422	769	409	357	105	68	105
CFSM	.29	.52	1.12	.26	5.03	1.13	3.21	4.18	2.23	.59	.35	.50
IN.	.33	.58	1.30	.30	5.24	1.30	3.58	4.82	2.49	.68	.40	.56

CAL YR 1980 TOTAL 311428 MEAN 851 MAX 7440 MIN 43 CFSM 1.24 IN 16.91
WTR YR 1981 TOTAL 397481 MEAN 1089 MAX 16600 MIN 43 CFSM 1.59 IN 21.59

01543500 SINNEMAHONING CREEK AT SINNEMAHONING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to September 1981 (discontinued).

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	CIFIC CON-DUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	LINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	AT 180 DEG. C DISSOLVED (MG/L)
OCT 22...	1400	60	270	5.3	9.5	.3	15	2	100	185
NOV 25...	1215	949	115	6.6	3.5	.3	15	11	28	68
DEC 29...	1600	E250	162	5.0	.5	.5	25	1	51	85
JAN 28...	1500	E[illegible]12	145	7.0	.0	--	--	6	48	86
FEB 25...	1040	5660	91	6.6	3.5	.3	15	3	28	58
MAR 23...	1245	492	157	5.1	4.5	.5	25	2	53	98
APR 21...	1715	1350	105	5.4	11.0	.2	10	2	37	57
MAY 19...	1545	2140	118	5.3	11.0	.3	15	1	44	82
JUN 17...	1045	2800	102	4.8	17.0	.2	10	2	37	75
JUL 16...	0845	113	225	4.8	22.0	.4	20	4	81	162
AUG 12...	1000	350	155	6.6	24.0	.2	10	3	50	106
SEP 14...	1015	285	180	6.2	20.0	.1	5.0	2	53	685

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 22...	.25	30.0	110	70	40	1200	0	1300	3	.49
NOV 25...	.09	174	890	860	30	220	10	210	14	36
DEC 29...	.12	--	230	190	40	580	30	550	11	--
JAN 28...	.12	--	280	250	30	410	0	450	3	--
FEB 25...	.08	886	840	620	220	260	40	220	10	153
MAR 23...	.13	130	390	140	250	540	10	530	2	2.7
APR 21...	.08	208	450	340	110	220	0	230	3	11
MAY 19...	.11	474	500	300	200	380	30	350	3	17
JUN 17...	.10	567	950	930	20	360	40	320	23	174
JUL 16...	.22	49.4	160	120	40	960	40	920	2	.61
AUG 12...	.14	100	190	170	20	590	0	620	2	1.9
SEP 14...	.93	527	340	330	10	700	0	740	2	1.5

BEST DOCUMENT AVAILABLE

01544000 FIRST FORK SINNEMAHONING CREEK NEAR SINNEMAHONING, PA

LOCATION.--Lat 41°24'06", long 78°01'28", Cameron County, Hydrologic Unit 02050202, on right bank 350 ft (107 m) downstream from Woodrock Run, 1,500 ft (460 m) upstream from Roaring Run, 0.75 mi (1.21 km) downstream from George B. Stevenson Dam, and 7.5 mi (12.1 km) northeast of Sinnemahoning.

DRAINAGE AREA.--245 mi^2 (635 km^2).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 878.71 ft (267.831 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by First Fork Sinnemahoning Creek Reservoir (station 01543900) 0.75 mi (1.21 km) upstream since Jan. 31, 1956. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 389 ft^3/s (11.02 m^3/s), 21.59 in/yr (548 mm/yr), adjusted for storage since January 1956.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft^3/s (289 m^3/s) Mar. 1, 1956, gage height, 6.60 ft (2.012 m); minimum daily, 0.10 ft^3/s (0.003 m^3/s) Aug. 8, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,170 ft^3/s (146 m^3/s) Feb. 22, gage height, 4.14 ft (1.262 m); minimum daily, 14 ft^3/s (0.396 m^3/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	70	158	95	39	774	618	3080	93	135	157	44
2	18	75	188	93	51	571	648	1570	189	121	123	97
3	14	66	701	88	65	460	628	1070	213	164	123	165
4	21	54	1330	80	116	373	665	762	243	165	112	118
5	25	54	886	67	100	400	544	632	210	135	93	303
6	23	50	571	58	77	351	423	558	185	210	84	273
7	18	31	447	70	72	267	363	419	176	167	68	267
8	16	58	376	70	78	256	319	372	152	128	300	367
9	18	81	418	66	80	239	339	317	298	110	170	703
10	18	115	454	62	75	223	304	296	280	97	120	464
11	18	113	507	58	309	210	284	370	216	88	100	350
12	18	107	473	52	1290	210	308	2070	188	72	118	251
13	26	97	439	47	1500	209	401	3150	165	56	90	210
14	29	86	360	47	1500	206	638	1590	176	54	72	199
15	28	83	290	50	1210	168	1040	2420	233	52	80	152
16	28	75	266	52	576	187	1070	2140	249	48	72	125
17	24	66	262	56	724	173	946	1510	359	42	60	116
18	23	54	211	56	1390	139	790	999	338	38	53	103
19	24	73	190	55	2550	132	708	774	281	38	52	83
20	27	80	133	54	1340	159	636	551	275	44	45	88
21	26	55	103	52	1240	178	520	450	296	241	46	83
22	26	55	84	48	4830	173	435	348	277	160	41	88
23	26	65	85	48	4220	154	479	298	269	83	41	75
24	26	75	166	48	1930	141	589	289	215	76	37	65
25	136	183	124	48	4680	141	624	218	222	85	35	64
26	442	257	82	48	4590	132	638	227	189	74	35	52
27	195	235	106	54	4030	132	598	212	137	63	35	54
28	134	252	113	63	2000	180	576	149	126	69	32	58
29	134	237	113	62	---	205	2870	140	113	643	35	48
30	107	202	113	59	---	270	4560	145	101	330	42	44
31	83	---	107	48	---	479	---	133	---	209	31	---
TOTAL	1771	3104	9856	1854	40662	7892	23561	27259	6464	3997	2502	5109
MEAN	57.1	103	318	59.8	1452	255	785	879	215	129	80.7	170
MAX	442	257	1330	95	4830	774	4560	3150	359	643	300	703
MIN	14	31	82	47	39	132	284	133	93	38	31	44
MEAN‡	57.1	102	319	59.2	1456	254	817	846	215	130	80.2	170
CFSM‡	.23	.42	1.30	.24	5.94	1.04	3.33	3.45	.88	.53	.33	.69
IN.‡	.27	.47	1.50	.28	6.19	1.20	3.72	3.98	.98	.61	.38	.77

CAL YR 1980 TOTAL 109475 MEAN 299 MAX 2690 MIN 14 MEAN‡ 299 CFSM‡ 1.22 IN.‡ 16.72
WTR YR 1981 TOTAL 134031 MEAN 367 MAX 4830 MIN 14 MEAN‡ 367 CFSM‡ 1.50 IN.‡ 20.35

01544500 KETTLE CREEK AT CROSS FORK, PA

LOCATION.--Lat 41°28'33", long 77°49'34", Potter County, Hydrologic Unit 02050203, on right bank just upstream from abutment of former highway bridge, 0.2 mi (0.3 km) downstream from Potter-Clinton County line, and 0.7 mi (1.1 km) southwest of Cross Fork.

DRAINAGE AREA.--136 mi² (352 km²).

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October, November 1940, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 1,027.12 ft (313.066 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 226 ft³/s (6.400 m³/s), 22.54 in/yr (573 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s (405 m³/s) June 23, 1972, gage height, 11.76 ft (3.584 m), from floodmark in gage well, from rating curve extended above 9,200 ft³/s (261 m³/s) on basis of slope-area measurement at gage height, 10.38 ft (3.164 m); minimum daily, 1.2 ft³/s (0.034 m³/s) Sept. 2-4, 1971; minimum gage height -0.32 ft (-0.098 m) Aug. 23, 24, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 14.0 ft (4.27 m) Mar. 18, 1936, from information by local residents, discharge about 20,000 ft³/s (570 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft³/s (68.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 12	0230	ice jam		6.14	1.871
Feb. 20	1900	*4,360	123	*6.55	1.996
Feb. 24	0400	3,460	98.0	5.76	1.756

Minimum daily discharge, 12 ft³/s (0.34 m³/s) Oct. 1-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	43	84	49	40	399	195	1210	67	64	104	21
2	12	39	129	45	70	325	243	821	114	123	82	50
3	14	34	422	43	100	272	261	557	114	135	70	75
4	19	32	401	40	130	234	269	423	130	98	64	70
5	18	32	320	45	110	217	266	345	107	118	96	105
6	15	29	255	49	100	194	239	301	97	124	75	95
7	14	28	216	52	96	171	213	251	87	106	62	150
8	13	44	198	49	100	153	194	215	75	90	63	220
9	14	46	195	47	110	140	192	189	125	77	54	239
10	13	59	213	44	100	129	173	173	93	67	45	166
11	17	48	207	39	150	125	169	214	78	58	44	166
12	18	43	207	31	300	117	171	522	66	52	41	138
13	15	40	202	31	430	115	216	654	61	47	36	108
14	15	40	181	32	400	102	297	564	71	47	34	89
15	14	38	170	37	320	94	429	806	102	40	36	78
16	14	35	140	40	250	96	484	1080	89	36	38	67
17	14	34	120	40	240	87	466	914	147	34	31	58
18	14	44	100	38	500	76	399	658	138	32	27	51
19	17	41	100	36	1300	91	330	474	131	32	25	46
20	15	33	70	35	3380	81	295	363	179	41	23	46
21	13	31	60	34	3200	81	258	289	219	76	21	42
22	13	35	54	33	1930	71	233	238	234	58	20	44
23	13	32	50	32	1920	69	249	199	211	37	19	45
24	17	42	54	31	3050	69	273	171	182	31	18	36
25	159	85	50	31	1790	66	272	150	164	29	18	32
26	209	86	45	31	1080	63	272	143	142	30	18	29
27	109	85	43	35	697	71	268	121	116	58	17	33
28	83	95	45	37	512	66	328	106	96	37	17	31
29	66	100	54	34	---	66	1750	100	80	318	18	28
30	55	90	54	32	---	95	1690	89	71	189	18	26
31	48	---	52	30	---	154	---	78	---	136	23	---
TOTAL	1082	1463	4491	1182	22405	4089	11094	12418	3586	2420	1257	2384
MEAN	34.9	48.8	145	38.1	800	132	370	401	120	78.1	40.5	79.5
MAX	209	100	422	52	3380	399	1750	1210	234	318	104	239
MIN	12	28	43	30	40	63	169	78	61	29	17	21
CFSM	.26	.36	1.07	.28	5.88	.97	2.72	2.95	.88	.57	.30	.59
IN.	.30	.40	1.23	.32	6.13	1.12	3.03	3.40	.98	.66	.34	.65

CAL YR 1980 TOTAL 59531 MEAN 163 MAX 1970 MIN 11 CFSM 1.20 IN 16.28
WTR YR 1981 TOTAL 67871 MEAN 186 MAX 3380 MIN 12 CFSM 1.37 IN 18.56

01545000 KETTLE CREEK NEAR WESTPORT, PA

LOCATION.--Lat 41°19'12", long 77°52'27", Clinton County, Hydrologic Unit 02050203, on left bank 0.4 mi (0.6 km) upstream from Short Bend 3.5 mi (5.6 km) upstream from mouth and Westport, and 5 mi (8 km) downstream from Kettle Creek Lake.

DRAINAGE AREA.--233 mi^2 (603 km^2).

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 728.24 ft (221.968 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1956, nonrecording gage at same site and datum. Several observations of water temperature were made during the year.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Kettle Creek Lake (station 01544800) 5 mi (8 km) upstream since February 1962.

AVERAGE DISCHARGE.--27 years, 371 ft^3/s (10.51 m^3/s), 21.59 in/yr (548 mm/yr), adjusted for storage since February 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,970 ft^3/s (226 m^3/s) Mar. 8, 1956; maximum gage height, 13.31 ft (4.057 m) Jan. 22, 1959 (ice jam); minimum discharge, 3.0 ft^3/s (0.085 m^3/s) Dec. 6, 1964, gage height, 1.12 ft (0.341 m); minimum daily, 4.4 ft^3/s (0.12 m^3/s) Nov. 3, 6, 12, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,230 ft^3/s (148 m^3/s) Feb. 25; minimum daily, 23 ft^3/s (0.65 m^3/s) Oct. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	64	126	100	45	690	286	2040	109	112	150	33
2	24	67	145	94	56	519	375	1340	143	126	116	47
3	23	65	598	90	67	457	431	894	204	186	101	116
4	23	61	707	80	120	415	442	750	245	167	107	97
5	25	59	520	70	100	379	430	560	210	148	112	95
6	28	56	413	74	80	315	393	567	198	160	128	125
7	30	53	337	80	80	283	334	402	183	157	100	126
8	28	62	306	80	82	256	298	328	162	139	97	285
9	26	78	307	80	82	203	284	282	263	112	95	438
10	24	108	337	74	82	196	305	283	276	103	76	304
11	25	105	346	65	300	212	234	336	198	101	65	240
12	25	82	337	56	1000	185	284	1050	171	88	67	204
13	29	74	329	50	1110	174	364	1350	149	77	65	152
14	29	74	294	50	956	174	578	1090	143	75	61	132
15	28	72	207	52	851	160	845	1180	193	73	58	128
16	27	70	180	56	731	157	934	1550	191	63	58	105
17	26	69	170	58	555	155	856	1350	190	62	58	96
18	26	64	150	58	983	126	711	999	217	61	47	84
19	25	69	140	56	2020	118	577	772	211	52	36	78
20	24	70	120	54	1170	134	511	602	193	58	38	78
21	26	62	100	54	598	140	436	471	315	120	38	76
22	26	60	90	52	3870	138	393	384	409	135	36	74
23	25	61	90	50	4080	129	392	326	360	80	35	76
24	26	63	150	50	881	125	474	278	291	62	33	73
25	114	93	130	49	4710	122	465	223	264	59	32	59
26	416	143	100	49	4940	118	459	209	237	115	30	49
27	127	142	110	56	4440	118	461	202	191	138	30	52
28	142	140	115	64	3250	119	489	173	157	40	29	53
29	95	156	115	66	---	118	2110	172	137	312	29	55
30	95	146	110	60	---	135	3600	154	119	316	30	54
31	60	---	105	50	---	226	---	139	---	196	31	---
TOTAL	1672	2488	7284	1977	37239	6796	18751	20456	6329	3693	1988	3584
MEAN	53.9	82.9	235	63.8	1330	219	625	660	211	119	64.1	119
MAX	416	156	707	100	4940	690	3600	2040	409	316	150	438
MIN	23	53	90	49	45	118	234	139	109	40	29	33
MEAN‡	54.1	82.2	235	62.8	1330	220	630	656	211	119	63.8	120
CFSM‡	.23	.35	1.01	.27	5.71	.94	2.70	2.82	.91	.51	.27	.52
IN.‡	.27	.39	1.16	.31	5.95	1.08	3.01	3.25	1.02	.59	.31	.58

CAL YR 1980 TOTAL 99410 MEAN 272 MAX 3330 MIN 21 MEAN‡ 272 CFSM‡ 1.17 IN.‡ 15.88
WTR YR 1981 TOTAL 112257 MEAN 308 MAX 4940 MIN 23 MEAN‡ 308 CFSM‡ 1.32 IN.‡ 17.92

‡Adjusted for change in contents in Kettle Creek Lake.

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA

LOCATION.--Lat 41°19'24", long 77°45'02", Clinton County, Hydrologic Unit 02050203, on right bank at abandoned Eighth Street bridge abutment at South Renovo, 1 mi (1.6 km) upstream from Paddy Run.

DRAINAGE AREA.--2,975 mi^2 (7,705 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage height records collected July 1895 to December 1903 and October 1905 to September 1974 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1908-10, 1912-13, 1914-15(M). WSP PA-69: 1968.

GAGE.--Water-stage recorder. Datum of gage is 634.19 ft (193.301 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 17, 1930, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Flow slightly regulated by 4 flood-control reservoirs, which have a combined capacity of 316,000 acre-ft (390 hm^3).

AVERAGE DISCHARGE.--74 years, 4,970 ft^3/s (140.8 m^3/s), 22.68 in/yr (576 mm/yr), adjusted for storage 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 236,000 ft^3/s (6,680 m^3/s) Mar. 18, 1936, gage height, 29.39 ft (8.958 m), from floodmark in gage shelter, from rating curve extended above 87,000 ft^3/s (2,460 m^3/s) on basis of slope-area measurement of peak flow; minimum, 80 ft^3/s (2.27 m^3/s) Dec. 6, 1908, gage height, -1.10 ft (-0.335 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1895, 27.3 ft (8.32 m), June 1, 1889, from floodmark, discharge, about 211,000 ft^3/s (5,980 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,400 ft^3/s (1,456 m^3/s) Feb. 20, gage height, 13.07 ft (3.984 m); minimum, 383 ft^3/s (10.8 m^3/s) Oct. 20,24, gage height, 0.04 ft (0.012 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	479	1290	3520	1600	1300	13500	5060	23900	2330	3360	2970	640
2	450	1170	3460	1500	1300	11700	5650	16000	2330	3380	2290	891
3	459	1110	6220	1400	2000	10200	5620	11800	3460	3690	2000	1380
4	455	1050	8070	1200	2600	8990	5700	9290	4270	3500	1810	1490
5	484	1000	7040	1100	3000	8110	5250	7470	6880	3100	1640	2560
6	489	974	5800	1200	2500	6470	4900	6640	5740	3210	1550	3210
7	480	921	5000	1300	2200	5080	4370	5730	4520	3010	1430	2210
8	460	937	4610	1300	2300	4720	3980	4780	3550	2590	1510	2490
9	425	1230	4750	1300	2200	4290	3520	4330	8720	2310	2510	3550
10	406	1590	5410	1350	2000	3950	3710	3930	12600	2010	1980	3030
11	430	2010	6280	1400	3000	3710	3420	4550	9380	1770	1550	2640
12	497	2180	5970	1100	6900	3500	3730	28500	6830	1630	1410	2090
13	565	1930	5560	900	10000	3360	4830	25200	5460	1490	1330	1670
14	490	1650	5080	900	9000	3360	8400	17500	5340	1380	1160	1430
15	459	1520	4200	1000	7000	3320	13100	19900	12900	1290	1080	1360
16	444	1430	3370	1100	6000	3270	13100	20700	14500	1170	1020	1290
17	457	1360	3100	1100	6000	3270	11100	15600	11600	1130	998	1490
18	451	1320	2900	1050	10000	3190	10200	11700	9470	1060	923	1350
19	426	1330	2900	1050	20100	3100	8690	9190	7580	998	820	1230
20	412	1620	2300	1050	40100	3060	7610	7610	6240	1110	780	1100
21	433	1500	1700	1100	46200	2960	6620	6290	5870	4250	742	1040
22	419	1470	1400	1200	41600	2810	5820	5390	6010	6670	676	998
23	403	1460	1400	1150	36400	2690	5290	4660	7970	3980	613	955
24	397	1480	1500	1150	34600	2640	6440	4120	6700	3060	613	871
25	712	2380	1700	1110	31500	2620	6990	3650	5500	2290	613	790
26	5020	4610	1600	1110	27600	2610	6600	3250	6730	2000	528	742
27	5290	3980	1500	1110	23700	2560	5990	3060	7970	2570	512	676
28	3630	4340	1500	1120	19400	2880	5740	2730	6240	3140	504	667
29	2540	4190	1500	1300	---	3100	23200	2620	4970	4810	496	640
30	1930	3830	1600	1500	---	3170	34000	2560	4000	5080	496	613
31	1620	---	1700	1400	---	4290	---	2360	---	3930	587	---
TOTAL	31612	56862	112640	37150	400500	142480	238630	295010	205660	84968	37141	45093
MEAN	1020	1895	3634	1198	14300	4596	7954	9516	6855	2741	1198	1503
MAX	5290	4610	8070	1600	46200	13500	34000	28500	14500	6670	2970	3550
MIN	397	921	1400	900	1300	2560	3420	2360	2330	998	496	613
CFSM	.34	.64	1.22	.40	4.81	1.55	2.67	3.20	2.30	.92	.40	.51
IN.	.40	.71	1.41	.46	5.01	1.78	2.98	3.69	2.57	1.06	.46	.56

CAL YR 1980 TOTAL 1467971 MEAN 4011 MAX 30500 MIN 397 CFSM 1.35 IN 18.36
WTR YR 1981 TOTAL 1687746 MEAN 4624 MAX 46200 MIN 397 CFSM 1.55 IN 21.10

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to current year.
pH: October 1968 to current year.
WATER TEMPERATURES: October 1968 to current year.
DISSOLVED OXYGEN: February 1975 to September 1977.

INSTRUMENTATION.--Water-quality monitor since October 1968.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE (WATER YEARS 1969-71, 74-76, 78, 79): Maximum, 973 micromhos Oct. 3, 1968; minimum, 87 micromhos Feb. 25, 1975.
pH (WATER YEARS 1969-72, 74-76, 78-81): Maximum, 6.8 units Mar. 24, 1978; minimum, 2.2 units Sept. 23, 24, 1969.
WATER TEMPERATURES (WATER YEARS 1969-71, 74-76, 78-81): Maximum, 31.0°C June 27-30 and July 16, 1969; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN (WATER YEARS 1975): Maximum, 14.0 mg/L Feb. 14, 1975; minimum, 6.5 mg/L Aug. 3, 1975.

EXTREMES FOR CURRENT YEAR.--
pH: Maximum, 6.6 units Oct. 29,30, minimum, 3.8 units Oct. 1, 3-9, 12-14, 16-25 and Sept. 1-3.
WATER TEMPERATURES: Maximum, 29.0°C July 10; minimum, 0.0°C Jan. 4, 8, 9, 12, 13.

COAL-HYDROLOGY NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
MAR										
23...	1600	2940	320	4.6	7.0	.8	40	130	220	.30
AUG										
12...	1600	1420	425	4.2	28.0	.8	40	170	268	.36

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR									
23...	1750	6400	6100	280	190	160	30	6	48
AUG									
12...	1030	260	140	120	2500	0	2500	1	3.8

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	603	558	579	---	---	---	285	264	272	312	308	312
2	578	559	569	---	---	---	273	267	271	324	312	318
3	633	558	577	---	---	---	266	249	254	332	324	327
4	---	---	---	427	418	422	254	231	240	340	332	333
5	---	---	---	435	426	432	---	---	---	355	336	350
6	---	---	---	438	423	435	215	203	206	355	344	351
7	---	---	---	452	436	445	219	207	214	355	344	348
8	---	---	---	462	414	452	223	219	221	371	355	366
9	---	---	---	464	423	449	238	223	233	355	344	350
10	---	---	---	447	420	436	238	230	233	371	351	361
11	---	---	---	462	419	445	242	234	238	398	371	389
12	---	---	---	483	438	466	238	207	228	402	398	399
13	---	---	---	438	393	406	223	215	220	406	398	402
14	---	---	---	394	374	382	219	199	215	398	391	394
15	---	---	---	382	374	377	223	215	220	418	391	407
16	---	---	---	396	382	389	226	211	220	422	414	419
17	---	---	---	402	396	399	242	219	227	418	406	412
18	---	---	---	407	398	402	246	238	242	406	402	404
19	---	---	---	407	386	399	254	246	248	406	402	403
20	---	---	---	412	383	399	281	254	267	406	402	404
21	---	---	---	417	402	408	293	281	284	410	406	409
22	---	---	---	418	394	409	332	269	288	410	402	406
23	---	---	---	395	363	374	285	262	275	402	398	400
24	---	---	---	374	361	369	301	281	288	410	398	402
25	---	---	---	368	354	360	297	285	293	414	406	411
26	---	---	---	417	338	379	---	---	---	414	410	412
27	---	---	---	337	271	296	---	---	---	414	410	410
28	---	---	---	302	280	288	---	---	---	410	406	408
29	---	---	---	310	299	304	---	---	---	406	398	402
30	---	---	---	304	284	292	---	---	---	430	410	420
31	---	---	---	---	---	---	312	293	301	437	430	435
MONTH	633	558	575	483	271	393	332	199	248	437	308	386

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	437	433	436	---	---	---	297	278	290	---	---	---
2	433	410	422	---	---	---	279	260	272	---	---	---
3	410	387	394	---	---	---	273	264	268	---	---	---
4	465	387	431	---	---	---	269	242	254	---	---	---
5	465	375	418	262	252	257	254	242	249	---	---	---
6	375	328	347	270	258	261	258	242	247	---	---	---
7	328	309	315	299	271	283	262	226	254	---	---	---
8	309	298	304	302	296	297	266	258	262	---	---	---
9	298	292	296	310	298	303	266	258	262	297	284	290
10	304	292	298	317	309	313	274	267	271	303	296	300
11	300	246	289	320	315	318	279	265	267	305	252	298
12	---	---	---	338	317	329	269	262	266	301	153	175
13	---	---	---	352	337	344	306	267	284	158	146	150
14	---	---	---	361	351	357	307	245	280	182	152	167
15	---	---	---	365	357	362	245	205	217	185	144	164
16	---	---	---	363	347	355	204	175	187	176	154	165
17	---	---	---	351	344	348	179	172	179	192	177	183
18	---	---	---	355	340	353	193	179	186	210	192	201
19	---	---	---	348	338	346	198	192	195	224	209	215
20	---	---	---	340	326	333	206	195	202	242	224	233
21	---	---	---	336	322	330	214	206	209	257	241	249
22	---	---	---	336	320	334	226	213	220	274	256	264
23	---	---	---	344	336	341	232	224	228	284	273	278
24	---	---	---	352	344	350	250	230	242	292	283	288
25	---	---	---	356	340	354	259	248	254	308	290	302
26	---	---	---	358	354	356	252	241	245	320	300	314
27	---	---	---	356	340	351	243	235	241	327	317	321
28	---	---	---	357	344	355	240	223	236	337	325	331
29	---	---	---	356	343	352	223	147	169	351	335	342
30	---	---	---	342	317	330	159	147	153	370	349	359
31	---	---	---	318	284	299	---	---	---	375	368	371
MONTH	465	246	359	365	252	330	307	147	236	375	144	259

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	392	374	384	299	276	286	332	322	327	565	526	541
2	396	365	381	309	296	300	344	328	333	572	540	557
3	365	326	349	345	309	330	362	343	355	586	477	552
4	366	345	356	347	327	337	373	357	366	477	450	462
5	388	306	355	344	336	338	391	367	378	466	388	432
6	305	290	290	336	320	326	408	389	400	471	393	441
7	280	269	272	332	320	328	419	402	410	393	364	375
8	289	269	281	348	332	339	447	402	431	367	335	350
9	285	183	245	355	344	349	449	321	349	340	204	297
10	212	185	201	359	354	357	402	371	391	305	269	292
11	210	200	205	374	357	366	420	395	408	362	300	342
12	224	205	219	392	370	382	427	400	417	347	334	343
13	242	224	234	412	391	400	441	401	432	350	327	340
14	248	232	243	425	409	416	453	437	446	347	335	339
15	248	212	235	437	422	430	460	447	454	---	---	---
16	218	188	193	446	434	439	462	451	456	---	---	---
17	209	189	199	448	434	441	469	449	459	---	---	---
18	230	205	217	462	441	453	491	460	473	---	---	---
19	254	230	241	479	460	471	512	475	499	---	---	---
20	271	253	262	482	409	459	522	489	506	---	---	---
21	290	268	278	461	393	419	533	500	519	---	---	---
22	295	285	290	452	315	356	543	505	531	---	---	---
23	300	281	291	317	310	314	534	501	520	---	---	---
24	281	266	271	324	316	321	542	500	518	---	---	---
25	280	268	274	320	316	318	568	542	556	---	---	---
26	298	274	285	326	319	323	572	553	562	---	---	---
27	301	256	280	374	324	342	579	547	564	---	---	---
28	264	249	255	418	372	395	596	569	583	---	---	---
29	265	255	260	400	254	332	605	546	587	---	---	---
30	278	259	270	337	274	303	553	527	541	---	---	---
31	---	---	---	340	332	337	539	507	529	---	---	---
MONTH	396	183	271	482	254	365	605	321	461	586	204	405

PH(STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3.9	3.8	3.9	5.6	5.4	5.5	6.0	5.6	5.7	4.8	4.8	4.8
2	3.9	3.9	3.9	5.4	5.2	5.3	5.7	5.5	5.6	4.8	4.8	4.8
3	3.9	3.8	3.9	5.2	5.1	5.2	5.8	5.5	5.6	4.8	4.8	4.8
4	4.0	3.8	3.9	5.1	5.0	5.1	6.1	5.8	6.0	4.9	4.8	4.8
5	3.9	3.8	3.8	5.0	4.8	4.9	---	---	---	4.9	4.8	4.9
6	3.9	3.8	3.8	4.9	4.6	4.7	5.8	5.6	5.7	4.9	4.9	4.9
7	3.8	3.8	3.8	4.6	4.4	4.5	5.6	5.4	5.5	5.0	4.9	5.0
8	3.9	3.8	3.9	4.7	4.3	4.4	5.4	5.3	5.4	5.0	4.9	4.9
9	3.9	3.8	3.9	4.4	4.3	4.3	5.3	5.1	5.2	4.9	4.8	4.9
10	3.9	3.9	3.9	4.4	4.3	4.4	5.2	5.1	5.2	4.9	4.8	4.8
11	4.1	3.9	3.9	4.4	4.3	4.3	5.4	5.1	5.2	4.8	4.7	4.8
12	4.1	3.8	3.9	4.4	4.2	4.3	5.7	5.4	5.6	4.8	4.7	4.7
13	4.0	3.8	3.9	4.7	4.4	4.6	5.7	5.7	5.7	4.7	4.7	4.7
14	3.9	3.8	3.9	5.0	4.7	4.9	5.7	5.5	5.6	4.7	4.7	4.7
15	3.9	3.9	3.9	5.0	5.0	5.0	5.6	5.5	5.5	4.7	4.7	4.7
16	3.9	3.8	3.9	5.1	5.0	5.1	5.7	5.5	5.5	4.7	4.6	4.6
17	3.9	3.8	3.9	5.2	5.1	5.2	5.5	5.3	5.4	4.6	4.6	4.6
18	3.9	3.8	3.9	5.2	5.2	5.2	5.3	5.3	5.3	4.6	4.5	4.6
19	4.0	3.8	3.9	5.3	5.2	5.3	5.3	5.2	5.3	4.6	4.5	4.6
20	4.0	3.8	3.9	5.3	5.1	5.2	5.2	5.2	5.2	4.6	4.6	4.6
21	3.9	3.8	3.8	5.3	5.2	5.3	5.3	5.2	5.3	4.7	4.6	4.6
22	4.0	3.8	3.8	5.3	5.1	5.2	5.7	5.3	5.4	4.7	4.6	4.7
23	3.9	3.8	3.8	5.3	5.2	5.3	5.7	5.3	5.5	4.8	4.7	4.8
24	3.9	3.8	3.8	5.4	5.3	5.4	5.3	5.0	5.2	4.8	4.7	4.8
25	4.2	3.8	3.9	5.4	5.1	5.3	5.2	5.0	5.0	4.8	4.8	4.8
26	4.9	4.0	4.4	5.3	4.7	5.0	---	---	---	4.8	4.8	4.8
27	4.6	4.1	4.3	5.4	5.3	5.3	---	---	---	4.8	4.8	4.8
28	6.3	4.6	5.4	6.4	5.3	5.8	---	---	---	4.8	4.7	4.7
29	6.6	6.3	6.5	6.4	6.4	6.4	---	---	---	4.8	4.7	4.8
30	6.6	6.4	6.5	6.4	6.0	6.2	---	---	---	4.7	4.6	4.6
31	6.4	5.6	6.0	---	---	---	4.9	4.8	4.9	4.8	4.6	4.7
MONTH	6.6	3.8	4.2	6.4	4.2	5.1	6.1	4.8	5.4	5.0	4.5	4.8

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	5.0	4.8	4.9	---	---	---	5.1	4.8	4.9	---	---	---
2	5.2	5.0	5.1	---	---	---	5.2	5.0	5.1	---	---	---
3	5.2	5.2	5.2	---	---	---	5.1	5.0	5.1	---	---	---
4	5.2	5.1	5.1	---	---	---	5.2	5.1	5.2	---	---	---
5	5.9	5.2	5.5	4.9	4.8	4.9	5.2	5.0	5.1	---	---	---
6	6.0	5.9	6.0	4.9	4.8	4.9	5.0	5.0	5.0	---	---	---
7	5.9	5.8	5.8	4.8	4.5	4.6	5.0	4.8	4.9	---	---	---
8	5.8	5.5	5.7	4.5	4.5	4.5	4.9	4.8	4.8	---	---	---
9	5.5	5.4	5.5	4.5	4.5	4.5	4.9	4.7	4.8	4.4	4.3	4.4
10	5.4	5.4	5.4	4.5	4.5	4.5	4.7	4.4	4.5	4.4	4.3	4.3
11	5.5	5.2	5.4	4.5	4.5	4.5	4.7	4.4	4.5	4.4	4.3	4.3
12	---	---	---	5.8	4.5	4.6	4.5	4.4	4.5	6.3	4.5	5.2
13	---	---	---	5.8	5.2	5.5	4.5	4.3	4.4	5.4	5.3	5.3
14	---	---	---	5.5	4.5	4.8	5.7	4.4	4.9	5.4	5.3	5.3
15	---	---	---	5.6	4.4	5.0	5.8	5.6	5.7	5.3	5.2	5.3
16	---	---	---	5.0	4.5	4.8	5.7	5.6	5.7	5.3	5.3	5.3
17	---	---	---	4.6	4.5	1.6	5.6	5.4	5.5	5.5	5.3	5.4
18	---	---	---	4.9	4.6	4.7	5.4	5.2	5.3	5.4	5.2	5.3
19	---	---	---	4.8	4.6	4.7	5.2	5.1	5.1	5.2	4.8	5.0
20	---	---	---	4.8	4.7	4.8	5.1	5.0	5.0	4.8	4.7	4.7
21	---	---	---	5.8	4.8	5.0	5.1	4.9	5.0	4.7	4.6	4.6
22	---	---	---	4.9	4.2	4.7	5.0	4.9	4.9	4.6	4.5	4.5
23	---	---	---	4.6	4.4	4.5	4.9	4.8	4.8	4.5	4.4	4.5
24	---	---	---	4.5	4.5	4.5	4.8	4.6	4.7	4.5	4.4	4.4
25	---	---	---	4.5	4.4	4.5	4.7	4.5	4.6	4.4	4.3	4.4
26	---	---	---	4.6	4.5	4.5	5.0	4.7	4.8	4.4	4.2	4.3
27	---	---	---	4.7	4.6	4.6	5.0	4.9	5.0	4.3	4.3	4.3
28	---	---	---	4.8	4.6	4.7	4.9	4.8	4.9	4.3	4.2	4.2
29	---	---	---	4.8	4.6	4.7	5.7	4.8	5.1	4.2	4.2	4.2
30	---	---	---	4.9	4.8	4.8	5.7	5.4	5.6	4.2	4.1	4.2
31	---	---	---	4.9	4.9	4.9	---	---	---	4.2	4.1	4.1
MONTH	6.0	4.8	5.4	5.8	4.2	4.7	5.8	4.3	5.0	6.3	4.1	4.7

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	4.1	4.1	4.1	4.6	4.4	4.5	4.6	4.6	4.6	3.9	3.8	3.9
2	4.1	4.1	4.1	4.4	4.3	4.3	4.6	4.5	4.6	3.9	3.8	3.8
3	4.4	4.1	4.2	4.3	4.2	4.2	4.5	4.3	4.4	3.9	3.8	3.8
4	4.2	4.1	4.1	4.2	4.2	4.2	4.3	4.1	4.2	4.0	3.9	4.0
5	4.9	4.1	4.4	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.9	4.0
6	6.0	4.9	5.6	4.3	4.2	4.2	4.2	4.1	4.2	4.3	4.0	4.1
7	5.9	5.1	5.4	4.3	4.2	4.3	4.2	4.1	4.1	4.7	4.3	4.6
8	5.1	4.9	5.0	4.3	4.0	4.1	4.1	4.1	4.1	5.0	4.8	4.9
9	5.5	4.9	5.0	4.2	4.1	4.1	4.4	4.1	4.3	5.0	4.8	4.9
10	5.2	5.0	5.1	4.1	4.1	4.1	4.3	4.2	4.2	4.9	4.7	4.8
11	5.2	4.9	5.1	4.1	4.1	4.1	4.2	4.1	4.1	4.7	4.5	4.6
12	4.9	4.7	4.8	4.1	4.1	4.1	4.1	4.1	4.1	4.6	4.5	4.5
13	4.7	4.6	4.7	4.1	4.0	4.0	4.1	4.1	4.1	4.6	4.6	4.6
14	5.0	4.5	4.6	4.0	4.0	4.0	4.1	4.0	4.0	4.6	4.5	4.5
15	5.0	4.5	4.7	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.3	4.4
16	5.1	5.0	5.0	4.0	4.0	4.0	4.1	4.0	4.0	4.4	4.3	4.4
17	5.1	4.9	5.0	4.0	3.9	4.0	4.0	4.0	4.0	4.3	4.1	4.2
18	4.9	4.5	4.7	4.0	3.9	4.0	4.0	4.0	4.0	4.2	4.1	4.1
19	4.5	4.4	4.5	4.0	3.9	3.9	4.0	3.9	4.0	4.2	4.2	4.2
20	4.5	4.4	4.4	4.1	3.9	3.9	4.0	3.9	3.9	4.3	4.2	4.3
21	4.4	4.2	4.3	4.0	3.9	4.0	4.0	3.9	3.9	4.3	4.3	4.3
22	4.3	4.3	4.3	4.8	3.9	4.3	4.0	3.9	3.9	4.3	4.2	4.2
23	4.4	4.3	4.3	5.0	4.8	4.9	4.0	3.9	3.9	4.3	4.2	4.2
24	4.4	4.4	4.4	4.8	4.7	4.8	4.0	3.9	3.9	4.4	4.2	4.2
25	4.4	4.4	4.4	4.7	4.7	4.7	3.9	3.9	3.9	4.2	4.1	4.1
26	4.4	4.3	4.3	4.7	4.5	4.6	3.9	3.9	3.9	4.2	4.1	4.1
27	4.9	4.3	4.5	4.5	4.2	4.3	3.9	3.9	3.9	4.1	4.1	4.1
28	5.0	4.9	4.9	4.2	4.0	4.1	3.9	3.9	3.9	4.2	4.1	4.1
29	4.9	4.8	4.8	4.7	4.1	4.3	3.9	3.9	3.9	4.2	4.1	4.1
30	4.8	4.6	4.7	4.6	4.4	4.5	3.9	3.9	3.9	4.1	4.1	4.1
31	---	---	---	4.6	4.4	4.5	3.9	3.9	3.9	---	---	---
MONTH	6.0	4.1	4.7	5.0	3.9	4.2	4.6	3.9	4.1	5.0	3.8	4.3

BEST DOCUMENT AVAILABLE

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	17.0	18.5	7.5	6.5	7.0	5.0	4.0	4.5	.5	.5	.5
2	19.0	16.5	17.5	7.0	6.0	6.5	5.5	4.5	5.0	.5	.5	.5
3	18.0	15.5	16.5	7.5	5.0	6.5	5.0	4.0	4.0	.5	.5	.5
4	17.0	14.5	16.0	9.0	7.0	8.0	5.5	5.0	5.0	.5	.0	.5
5	14.5	13.0	13.5	8.5	7.5	8.0	---	---	---	.5	.5	.5
6	13.5	11.5	12.5	8.0	6.5	7.0	1.5	1.0	1.5	.5	.5	.5
7	14.0	12.0	13.0	9.0	6.5	7.5	3.5	1.5	2.5	.5	.5	.5
8	15.5	12.5	14.0	10.5	9.0	9.5	6.0	3.5	4.5	.5	.0	.5
9	16.5	14.0	15.0	9.0	8.0	8.5	6.5	6.0	6.5	.5	.0	.5
10	15.0	13.0	13.5	8.5	6.5	7.5	6.5	6.0	6.5	1.0	.5	.5
11	15.0	12.5	13.5	6.5	5.5	5.5	6.0	4.0	5.0	.5	.5	.5
12	13.5	11.5	12.5	6.0	5.0	5.5	4.0	3.5	3.5	.5	.0	.5
13	11.5	10.5	11.0	7.5	5.0	5.5	4.0	3.5	4.0	.5	.0	.5
14	12.5	10.0	11.0	6.5	5.5	6.0	3.5	2.0	3.0	.5	.5	.5
15	13.0	11.0	12.0	7.5	6.5	7.0	2.0	.5	1.0	.5	.5	.5
16	14.0	11.5	12.5	6.5	5.0	6.0	1.0	.5	.5	.5	.5	.5
17	16.0	13.5	14.5	5.0	2.0	3.5	1.0	.5	1.0	.5	.5	.5
18	16.5	15.5	16.0	2.5	1.5	2.0	1.5	.5	1.0	.5	.5	.5
19	15.5	13.5	14.5	3.5	2.5	3.0	1.5	.5	1.0	.5	.5	.5
20	13.0	11.5	12.0	4.0	3.0	3.0	.5	.5	.5	.5	.5	.5
21	11.5	10.5	11.0	3.5	2.5	3.0	.5	.5	.5	.5	.5	.5
22	11.5	9.5	10.5	4.0	3.0	3.5	1.5	.5	.5	.5	.5	.5
23	10.5	8.5	9.5	4.0	3.0	3.5	.5	.5	.5	.5	.5	.5
24	9.5	8.0	9.0	4.5	4.0	4.0	.5	.5	.5	.5	.5	.5
25	9.5	8.5	9.0	6.0	4.5	5.0	1.5	.5	.5	.5	.5	.5
26	8.5	7.5	8.0	5.5	4.5	5.0	---	---	---	.5	.5	.5
27	9.0	8.0	8.5	4.5	3.0	3.5	---	---	---	.5	.5	.5
28	9.0	8.5	9.0	3.5	3.0	3.5	---	---	---	.5	.5	.5
29	8.5	7.5	8.0	4.0	3.5	3.5	---	---	---	.5	.5	.5
30	8.5	7.0	8.0	4.5	4.0	4.0	---	---	---	.5	.5	.5
31	8.5	7.0	7.5	---	---	---	.5	.5	.5	.5	.5	.5
MONTH	20.0	7.0	12.0	10.5	1.5	5.5	6.5	.5	2.5	1.0	.0	.5

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.5	.5	.5	---	---	---	12.0	11.5	11.5	---	---	---
2	.5	.5	.5	---	---	---	13.0	10.5	11.5	---	---	---
3	.5	.5	.5	---	---	---	13.0	11.0	12.0	---	---	---
4	.5	.5	.5	---	---	---	14.5	12.5	13.5	---	---	---
5	.5	.5	.5	4.0	3.5	4.0	14.5	13.0	14.0	---	---	---
6	.5	.5	.5	4.5	3.5	4.0	13.0	11.0	12.0	---	---	---
7	.5	.5	.5	4.0	3.0	3.5	12.0	9.0	10.5	---	---	---
8	.5	.5	.5	3.5	3.0	3.5	13.0	10.0	11.5	---	---	---
9	.5	.5	.5	4.0	3.5	3.5	13.5	12.5	13.0	16.0	13.0	14.5
10	.5	.5	.5	5.0	4.0	4.5	14.0	11.0	13.0	17.5	14.5	16.0
11	.5	.5	.5	5.0	4.0	4.5	14.5	12.0	13.5	18.0	16.5	17.0
12	---	---	---	6.0	3.5	4.5	14.5	13.0	13.5	16.5	11.5	13.5
13	---	---	---	6.5	5.0	6.0	12.5	11.5	12.0	12.0	10.5	11.5
14	---	---	---	6.0	4.5	5.0	12.0	10.5	11.0	14.0	11.5	12.5
15	---	---	---	6.5	3.5	5.0	10.5	9.0	9.5	14.0	13.0	13.5
16	---	---	---	6.5	5.0	6.0	10.5	8.5	9.5	13.5	12.5	13.0
17	---	---	---	4.5	3.0	4.0	10.5	9.5	10.0	13.5	11.5	12.5
18	---	---	---	3.0	2.0	2.5	15.0	8.5	11.5	14.0	12.5	13.5
19	---	---	---	3.0	2.0	2.5	12.5	11.5	12.0	13.5	13.0	13.0
20	---	---	---	3.0	2.0	2.5	13.0	11.5	12.0	15.0	12.0	13.5
21	---	---	---	5.0	2.0	3.5	12.0	10.0	11.0	16.5	13.5	15.0
22	---	---	---	5.5	4.5	5.0	13.0	10.0	11.0	18.5	15.0	16.5
23	---	---	---	7.0	4.5	5.5	12.0	11.5	11.5	19.5	16.0	18.0
24	---	---	---	7.0	5.0	6.0	12.0	11.0	11.5	20.5	17.5	19.0
25	---	---	---	6.5	5.0	6.0	11.0	9.5	10.0	21.0	18.5	20.0
26	---	---	---	8.0	5.0	6.5	11.5	9.0	10.0	21.0	17.0	20.0
27	---	---	---	8.5	7.0	8.0	14.0	11.0	12.5	20.5	19.0	20.0
28	---	---	---	10.0	7.0	8.0	14.0	13.0	13.5	20.5	19.5	20.0
29	---	---	---	11.0	8.5	9.5	14.0	11.5	12.5	21.5	19.0	20.0
30	---	---	---	10.5	9.5	10.0	11.5	10.5	11.0	22.0	20.0	21.5
31	---	---	---	13.0	10.0	11.5	---	---	---	23.5	20.5	21.5
MONTH	.5	.5	.5	13.0	2.0	5.5	15.0	8.5	11.5	23.5	10.5	16.5

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	22.5	19.5	21.0	23.0	21.0	22.0	24.0	21.5	22.5	23.0	22.0	22.5
2	21.5	19.0	20.0	22.0	21.5	21.5	25.0	22.0	23.5	22.0	21.5	22.0
3	19.0	18.0	18.5	22.0	20.5	21.0	24.5	23.0	24.0	21.5	21.0	21.5
4	21.0	18.0	19.5	22.0	20.5	21.5	25.5	23.0	24.0	21.0	20.0	20.5
5	22.5	20.0	21.0	23.0	21.0	22.0	25.5	23.5	24.5	20.5	20.0	20.0
6	23.0	21.0	22.0	25.0	21.0	23.0	24.5	23.0	23.5	23.0	20.5	21.5
7	23.5	20.5	22.0	26.5	23.0	25.0	24.5	22.5	23.5	23.5	22.0	22.5
8	22.5	20.0	21.5	28.0	24.0	26.0	27.0	23.0	24.5	22.5	20.5	21.5
9	22.0	18.5	20.5	28.0	25.0	26.5	25.5	23.5	24.5	20.5	19.0	19.5
10	19.0	17.5	18.0	29.0	25.5	27.0	26.5	23.0	24.5	19.5	17.5	18.5
11	19.0	17.0	18.0	28.5	25.0	26.5	26.0	24.0	25.0	21.0	18.5	19.5
12	20.0	18.0	19.0	28.0	25.0	26.5	26.5	23.5	25.0	22.5	20.0	21.0
13	21.5	19.0	20.0	27.5	25.5	26.5	25.0	23.5	24.5	22.5	20.0	21.0
14	22.0	20.5	21.0	27.5	25.0	26.0	25.0	23.5	24.0	22.5	21.0	22.0
15	20.5	19.0	20.0	26.0	23.0	24.5	24.5	23.5	24.0	21.5	20.5	21.0
16	20.0	18.5	19.0	24.5	22.5	23.5	24.0	22.5	23.0	21.5	16.0	20.0
17	19.5	19.0	19.5	26.0	22.0	24.0	23.5	20.0	22.0	21.0	15.5	19.5
18	20.5	18.0	19.0	27.0	23.0	25.0	24.0	16.0	21.5	20.0	15.5	18.5
19	21.5	19.0	20.0	27.0	24.0	25.5	24.5	20.5	22.5	19.0	16.5	18.0
20	21.0	20.0	20.5	26.5	24.5	25.0	24.5	21.0	23.0	18.0	16.0	17.0
21	20.5	19.5	20.0	24.5	23.0	24.0	24.5	21.0	22.5	16.5	15.0	15.5
22	20.5	19.5	20.0	24.5	23.0	23.5	25.0	22.0	23.5	15.5	15.0	15.5
23	20.5	18.5	19.5	24.5	21.0	22.5	25.0	21.0	23.0	15.5	13.5	14.5
24	21.0	19.0	20.0	23.0	21.0	22.0	24.0	21.5	22.5	16.0	12.5	14.0
25	20.5	20.0	20.0	21.5	20.5	21.0	23.0	20.5	22.0	16.5	13.5	15.0
26	20.0	18.5	19.0	21.0	20.0	20.5	23.5	20.5	22.0	18.5	15.5	17.0
27	19.5	17.5	18.5	24.5	21.0	22.5	24.5	21.5	23.0	18.5	17.0	18.0
28	21.0	18.0	19.5	23.5	22.0	22.5	24.0	22.5	23.0	18.0	15.5	16.5
29	22.0	19.0	20.5	22.5	20.5	21.5	24.5	21.5	23.0	15.5	13.5	14.5
30	24.0	20.5	22.0	22.0	19.5	20.5	24.5	22.5	23.5	14.0	12.0	13.0
31	---	---	---	23.5	20.5	22.0	23.5	22.5	23.0	---	---	---
MONTH	24.0	17.0	20.0	29.0	19.5	23.5	27.0	16.0	23.5	23.5	12.0	18.5

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA
(Hydrologic bench-mark station)

LOCATION.--Lat 41°23'22", long 77°41'28", Clinton County, Hydrologic Unit 02050203, on left bank, 0.3 mi (0.5 km) downstream from Laurelly Fork, 1.5 mi (2.4 km) upstream from Left Branch Young Womans Creek, 3.7 mi (6.0 km) upstream from mouth, and 5 mi (8 km) northeast of Renovo.

DRAINAGE AREA.--46.2 mi^2 (119.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 780 ft (238 m), from topographic map.

REMARKS.--Discharge records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--16 years, 76.6 ft^3/s (2.169 m^3/s), 22.54 in/yr (573 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,370 ft^3/s (152 m^3/s) June 23, 1972, gage height, 7.98 ft (2.432 m), from rating curve extended above 1,000 ft^3/s (28.3 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.1 ft^3/s (0.031 m^3/s) Sept. 6, 7, 1971; minimum gage height, 1.45 ft (0.442 m) Aug. 30, 31, Sept. 1, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 460 ft^3/s (13.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	1730	1,160	32.9	4.21	1.283	Apr. 29	2000	489	13.8	3.19	0.972
Feb. 23	2315	*1,320	37.4	*4.41	1.344						

Minimum discharge, 2.8 ft^3/s (0.08 m^3/s) Oct. 1, 2, 10, minimum gage height, 1.52 ft (0.463 m) Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	7.3	18	11	8.0	159	58	358	28	21	22	7.8
2	2.8	6.2	26	9.8	15	130	69	273	44	39	21	17
3	3.7	5.8	61	8.9	20	108	71	202	48	36	21	21
4	5.8	5.8	53	8.1	15	91	73	162	61	29	21	28
5	4.1	5.8	49	9.0	13	83	72	134	49	34	25	29
6	3.7	5.3	40	10	15	73	59	117	46	31	23	31
7	3.4	4.9	36	11	17	64	60	98	43	28	21	23
8	3.7	14	38	9.7	18	58	56	83	40	24	19	46
9	3.1	15	39	8.9	18	53	60	72	59	22	17	50
10	2.8	17	46	8.3	17	49	56	65	44	21	16	37
11	4.9	13	43	7.7	60	47	59	81	39	19	14	32
12	4.9	11	42	7.0	150	45	62	164	34	17	13	27
13	3.7	10	42	7.0	200	43	83	162	31	16	12	25
14	3.7	9.6	39	7.8	200	42	123	160	36	16	12	24
15	3.7	8.9	34	8.4	170	39	167	173	42	15	12	22
16	3.4	8.3	29	9.0	110	39	176	165	36	14	13	19
17	3.4	7.8	25	9.0	100	36	167	156	42	13	11	17
18	3.4	9.3	22	8.5	120	39	146	135	34	12	9.5	16
19	3.7	8.6	22	8.1	236	36	119	115	31	11	8.9	15
20	3.4	7.8	18	7.7	900	33	104	98	30	34	8.3	15
21	3.1	7.0	15	7.5	875	31	91	83	30	39	7.7	14
22	3.1	7.6	13	7.3	541	29	81	72	47	29	7.2	15
23	3.4	7.5	12	7.5	691	29	85	62	39	19	6.6	16
24	3.1	12	13	7.5	1030	29	88	55	33	16	6.4	13
25	45	25	12	7.4	567	28	79	49	33	16	6.2	12
26	46	23	11	7.3	360	26	72	46	31	16	6.1	12
27	17	19	10	7.4	254	28	69	42	28	16	5.7	11
28	13	21	11	7.7	198	26	82	39	25	18	5.6	11
29	10	22	13	7.4	---	26	314	39	23	57	6.2	10
30	8.2	19	13	7.1	---	39	453	34	22	30	6.1	10
31	7.8	---	13	6.8	---	54	---	30	---	25	9.4	---
TOTAL	233.8	344.5	858	255.8	6918.0	1612	3254	3524	1128	733	392.9	625.8
MEAN	7.54	11.5	27.7	8.25	247	52.0	108	114	37.6	23.6	12.7	20.9
MAX	46	25	61	11	1030	159	453	358	61	57	25	50
MIN	2.8	4.9	10	6.8	8.0	26	56	30	22	11	5.6	7.8
CFSM	.16	.25	.60	.18	5.35	1.13	2.34	2.47	.81	.51	.28	.45
IN.	.19	.28	.69	.21	5.57	1.30	2.62	2.84	.91	.59	.32	.50

CAL YR 1980 TOTAL 18352.0 MEAN 50.1 MAX 535 MIN 1.8 CFSM 1.08 IN 14.78
WTR YR 1981 TOTAL 19879.8 MEAN 54.5 MAX 1030 MIN 2.8 CFSM 1.18 IN 16.01

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1965 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: October 1980 to September 1981.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 443 mg/L Feb. 20; minimum daily mean, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 961 tons (872 tonnes) Feb. 20; minimum daily, 0.02 tons (0.02 tonnes) on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN DISSOLVED (MG/L AS N)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT												
21...	1245	3.1	49	7.2	9.5	10.6	--	K680	K8	80	17	2
NOV												
13...	0945	10	43	7.2	3.0	13.8	--	K150	K4	K4	16	2
DEC												
30...	1030	13	40	6.8	1.5	13.2	.39	--	K4	65	12	1
JAN												
21...	1210	7.5	41	6.9	.5	14.6	--	--	K1	K2	14	10
FEB												
26...	1040	362	33	7.0	5.0	12.5	--	--	K3	K1	12	--
MAR												
31...	0925	52	42	6.5	7.5	12.0	2.0	--	K3	K1	13	8
APR												
22...	1040	81	37	6.5	7.0	11.8	.52	--	<1	<1	13	10
MAY												
27...	1000	40	36	6.9	13.0	10.5	.49	--	K2	28	13	5
JUN												
29...	1000	21	40	6.7	13.5	10.0	.35	--	K19	106	14	9
JUL												
23...	0930	16	43	6.7	15.5	9.8	.30	--	K19	107	--	--
AUG												
18...	0930	9.6	42	6.8	13.0	9.8	.43	--	K8	59	16	0
SEP												
06...	0950	34	40	6.9	17.5	9.6	.45	--	81	123	20	5

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT												
21...	.1	5.0	4.6	1.3	1.4	14	.2	.9	15	8.5	1.6	.0
NOV												
13...	.1	5.0	4.5	1.2	1.3	14	.1	.8	14	7.5	1.0	.0
DEC												
30...	.4	20	3.5	.7	1.0	15	.1	.6	11	8.7	1.1	.0
JAN												
21...	.3	15	4.0	1.0	1.0	13	.1	.6	4.0	8.0	1.2	<.1
FEB												
26...	--	--	3.4	.9	.6	9	.1	.7	9.0	8.0	.9	<.1
MAR												
31...	--	--	3.7	.9	.8	11	.1	.7	5.0	8.5	1.2	<.1
APR												
22...	--	--	3.7	1.0	.8	11	.1	.7	3.0	8.4	1.0	<.1
MAY												
27...	--	--	3.7	.8	.7	10	.1	.7	8.0	8.0	1.1	<.1
JUN												
29...	--	--	4.0	1.0	.8	10	.1	.8	5.0	7.2	1.1	<.1
JUL												
23...	--	--	--	--	--	--	--	.8	12	7.5	1.1	<.1
AUG												
18...	--	--	4.7	1.1	1.2	13	.1	.7	17	6.4	1.4	<.1
SEP												
06...	--	--	5.6	1.4	1.1	10	.1	1.5	15	7.7	1.3	<.1

K=Results based on non-ideal colony count.

BEST DOCUMENT AVAILABLE.

BEST DOCUMENT AVAILABLE

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
OCT 21...	4.0	38	31	.05	.32	--	--	--	--	--	--	--
NOV 13...	3.6	26	29	.04	.73	.30	.25	--	--	--	--	--
DEC 30...	3.3	28	27	.04	.98	.34	.34	.030	.030	.16	.04	.00
JAN 21...	3.8	30	24	.04	.61	.37	.36	<.010	<.010	.01	.01	--
FEB 26...	3.8	19	26	.03	18.6	.42	.42	.010	.010	--	.01	.19
MAR 31...	3.7	28	24	.04	3.9	.34	.34	.020	.020	--	.03	.16
APR 22...	4.3	25	23	.03	5.5	.30	.30	.030	.020	--	.03	.15
MAY 27...	3.0	32	24	.04	3.4	.20	.20	.020	<.010	--	.01	.24
JUN 29...	4.4	27	23	.04	1.5	.27	.26	.030	.030	--	.04	.10
JUL 23...	--	43	18	.06	1.9	.27	.27	<.010	<.010	--	.01	--
AUG 18...	4.6	28	32	.04	.73	.26	.26	.010	<.010	--	.01	.23
SEP 06...	4.6	30	34	.04	2.7	.34	.34	<.010	<.010	--	.01	--

DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
OCT 21...	--	--	--	--	--	--	.010	.03	--	.010	.03
NOV 13...	--	--	--	--	--	--	.020	.06	--	.000	.00
DEC 30...	.00	.03	.00	.03	.37	1.6	.010	.03	.000	--	--
JAN 21...	--	<.10	--	<.10	--	--	<.010	.03	<.010	--	--
FEB 26...	--	.20	--	<.10	.62	2.7	<.010	.03	<.010	--	--
MAR 31...	.16	.18	.00	.18	.52	2.3	<.010	.03	<.010	--	--
APR 22...	.16	.18	.00	.18	.48	2.1	.010	.03	.010	--	--
MAY 27...	--	.26	.00	.25	.46	2.0	<.010	.03	<.010	--	--
JUN 29...	.06	.13	.04	.09	.40	1.8	<.010	.03	<.010	--	--
JUL 23...	--	.03	.02	.01	.30	1.3	<.010	.03	<.010	--	--
AUG 18...	--	.24	.08	.16	.50	2.2	<.010	.03	<.010	--	--
SEP 06...	--	.25	.14	.11	.59	2.6	<.010	--	<.010	--	--

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	POTASSIUM 40 DISSOLVED (PCI/L AS K40)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	140	140	1	10	2	8	.70	--	5	.04	100
NOV 13...	90	--	<10	10	10	0	.50	--	4	.11	100
DEC 30...	50	50	0	0	0	0	.40	--	--	--	--
JAN 21...	50	50	0	10	10	0	.40	.2	1	.02	100
FEB 26...	140	130	10	20	10	10	.50	1.3	5	4.9	50
MAR 31...	260	250	10	10	0	10	.50	4.5	1	.14	100
APR 22...	60	30	30	10	0	10	.50	1.2	1	.22	100
MAY 27...	160	150	6	10	7	3	.50	.9	4	.44	100
JUN 29...	80	50	30	10	10	0	.60	1.0	5	.28	100
JUL 23...	100	--	--	10	--	--	.60	--	5	.22	100
AUG 18...	130	110	20	10	--	<10	.50	.4	1	.03	100
SEP 06...	140	110	30	20	--	<10	--	.4	1	.09	100

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
NOV 13...	0945	.6	<.4	.4	<.3	.9	<.4	.9	<.4	.12	.02

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
FEB 20...	1400	1090	664	1950	7	12	16

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
FEB 20...	22	30	43	70	95	99	100

BEST DOCUMENT AVAILABLE

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	2.8	4	.03	7.3	3	.06	18	1	.05
2	2.8	4	.03	6.2	3	.05	26	2	.14
3	3.7	4	.04	5.8	2	.03	61	2	.33
4	5.8	5	.08	5.8	2	.03	53	2	.29
5	4.1	4	.04	5.8	2	.03	49	2	.26
6	3.7	4	.04	5.3	2	.03	40	2	.22
7	3.4	4	.04	4.9	2	.03	36	1	.10
8	3.7	4	.04	14	5	.19	38	1	.10
9	3.1	4	.03	15	4	.16	39	1	.11
10	2.8	4	.03	17	3	.14	46	1	.12
11	4.9	5	.07	13	3	.11	43	1	.12
12	4.9	5	.07	11	3	.09	42	1	.11
13	3.7	4	.04	10	3	.08	42	1	.11
14	3.7	4	.04	9.6	2	.05	39	1	.11
15	3.7	4	.04	8.9	2	.05	34	3	.28
16	3.4	4	.04	8.3	2	.04	29	1	.08
17	3.4	4	.04	7.8	2	.04	25	1	.07
18	3.4	5	.05	9.3	2	.05	22	1	.06
19	3.7	5	.05	8.6	2	.05	22	1	.06
20	3.4	5	.05	7.8	2	.04	18	1	.05
21	3.1	5	.04	7.0	3	.06	15	1	.04
22	3.1	4	.03	7.6	2	.04	13	1	.04
23	3.4	4	.04	7.5	2	.04	12	1	.03
24	3.1	4	.03	12	2	.06	13	1	.04
25	45	21	4.7	25	3	.20	12	1	.03
26	46	10	1.4	23	2	.12	11	1	.03
27	17	5	.23	19	2	.10	10	1	.03
28	13	4	.14	21	2	.11	11	1	.03
29	10	3	.08	22	1	.06	13	1	.04
30	8.2	3	.07	19	1	.05	13	1	.04
31	7.8	3	.06	---	---	---	13	1	.04
TOTAL	233.8	---	7.71	344.5	---	2.19	858	---	3.16

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	11	1	.03	8.0	1	.02	159	2	.86
2	9.8	1	.03	15	1	.04	130	2	.70
3	8.9	1	.02	20	1	.05	108	2	.58
4	8.1	1	.02	15	1	.04	91	2	.49
5	9.0	1	.02	13	1	.04	83	2	.45
6	10	1	.03	15	1	.04	73	2	.39
7	11	1	.03	17	1	.05	64	2	.35
8	9.7	1	.03	18	1	.05	58	2	.31
9	8.9	1	.02	18	1	.05	53	2	.29
10	8.3	1	.02	17	1	.05	49	2	.26
11	7.7	1	.02	60	9	1.5	47	2	.25
12	7.0	1	.02	150	3	1.2	45	2	.24
13	7.0	1	.02	200	2	1.1	43	2	.23
14	7.8	1	.02	200	4	2.2	42	2	.23
15	8.4	1	.02	170	2	.92	39	2	.21
16	9.0	1	.02	110	2	.59	39	2	.21
17	9.0	1	.02	100	5	1.4	36	2	.19
18	8.5	1	.02	120	26	8.4	39	2	.21
19	8.1	1	.02	236	34	22	36	2	.19
20	7.7	1	.02	900	443	961	33	2	.18
21	7.5	1	.02	875	90	213	31	2	.17
22	7.3	1	.02	541	25	37	29	2	.16
23	7.5	1	.02	691	124	351	29	2	.16
24	7.5	1	.02	1030	64	199	29	1	.08
25	7.4	1	.02	567	7	11	28	1	.08
26	7.3	1	.02	360	5	4.9	26	1	.07
27	7.4	1	.02	254	3	2.1	28	1	.08
28	7.7	1	.02	198	3	1.6	26	1	.07
29	7.4	1	.02	---	---	---	26	1	.07
30	7.1	1	.02	---	---	---	39	2	.21
31	6.8	1	.02	---	---	---	54	1	.15
TOTAL	255.8	---	0.67	6918.0	---	1820.34	1612	---	8.12

BEST DOCUMENT AVAILABLE

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	58	1	.16	358	3	2.9	28	1	.08
2	69	1	.19	273	2	1.5	44	3	.36
3	71	1	.19	202	2	1.1	48	3	.39
4	73	1	.20	162	2	.87	61	2	.33
5	72	1	.19	134	2	.72	49	2	.26
6	59	1	.16	117	2	.63	46	2	.25
7	60	1	.16	98	2	.53	43	2	.23
8	56	1	.15	83	2	.45	40	2	.22
9	60	1	.16	72	2	.39	59	9	1.4
10	56	1	.15	65	2	.35	44	1	.12
11	59	1	.16	81	3	.66	39	1	.11
12	62	1	.17	164	2	.89	34	1	.09
13	83	1	.22	162	2	.87	31	1	.08
14	123	2	.66	160	2	.86	36	2	.19
15	167	2	.90	173	2	.93	42	2	.23
16	176	2	.95	165	2	.89	36	2	.19
17	167	2	.90	156	2	.84	42	2	.23
18	146	2	.79	135	2	.73	34	2	.18
19	119	1	.32	115	1	.31	31	2	.17
20	104	1	.28	98	1	.26	30	2	.16
21	91	1	.25	83	1	.22	30	2	.16
22	81	1	.22	72	1	.19	47	6	.76
23	85	1	.23	62	1	.17	39	3	.32
24	88	1	.24	55	1	.15	33	2	.18
25	79	1	.21	49	1	.13	33	3	.27
26	72	1	.19	46	1	.12	31	3	.25
27	69	1	.19	42	1	.11	28	2	.15
28	82	3	.66	39	1	.11	25	2	.14
29	314	15	13	39	1	.11	23	2	.12
30	453	5	6.1	34	1	.09	22	2	.12
31	---	---	---	30	1	.08	---	---	---
TOTAL	3254	---	28.35	3524	---	18.16	1128	---	7.74

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	21	2	.11	22	1	.06	7.8	1	.02
2	39	4	.42	21	1	.06	17	4	.18
3	36	2	.19	21	2	.11	21	2	.11
4	29	2	.16	21	1	.06	28	2	.15
5	34	3	.28	25	3	.20	29	1	.08
6	31	2	.17	23	1	.06	31	1	.08
7	28	2	.15	21	1	.06	23	1	.06
8	24	2	.13	19	1	.05	46	5	.62
9	22	2	.12	17	1	.05	50	2	.27
10	21	2	.11	16	1	.04	37	1	.10
11	19	2	.10	14	1	.04	32	1	.09
12	17	2	.09	13	1	.04	27	1	.07
13	16	2	.09	12	1	.03	25	1	.07
14	16	2	.09	12	1	.03	24	1	.06
15	15	2	.08	12	1	.03	22	1	.06
16	14	2	.08	13	1	.04	19	1	.05
17	13	2	.07	11	1	.03	17	1	.05
18	12	2	.06	9.5	1	.03	16	1	.04
19	11	2	.06	8.9	1	.02	15	1	.04
20	34	9	1.4	8.3	1	.02	15	1	.04
21	39	3	.32	7.7	1	.02	14	1	.04
22	29	2	.16	7.2	1	.02	15	2	.08
23	19	2	.10	6.6	1	.02	16	2	.09
24	16	2	.09	6.4	1	.02	13	2	.07
25	16	2	.09	6.2	1	.02	12	2	.06
26	16	2	.09	6.1	1	.02	12	2	.06
27	16	2	.09	5.7	1	.02	11	2	.06
28	18	4	.19	5.6	1	.02	11	2	.06
29	57	11	2.0	6.2	1	.02	10	2	.05
30	30	5	.41	6.1	1	.02	10	2	.05
31	25	2	.14	9.4	1	.03	---	---	---
TOTAL	733	---	7.64	392.9	---	1.29	625.8	---	2.86
YEAR	19879.8		1908.23						

01546500 SPRING CREEK NEAR AXEMANN, PA

LOCATION.--Lat 40°53'23", long 77°47'40", Centre County, Hydrologic Unit 02050204, on right bank at upstream side of highway bridge, 1.6 mi (2.6 km) west of Axemann, 1.8 mi (2.9 km) southwest of Bellefonte, and 2.5 mi (4.0 km) upstream from Logan Branch.

DRAINAGE AREA.--87.2 mi^2 (225.8 km^2).

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 788.81 ft (240.429 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery and Rockview Penitentiary. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 90.5 ft^3/s (2.563 m^3/s), 14.12 in/yr (359 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft^3/s (153 m^3/s) June 23, 1972, gage height, 7.47 ft (2.277 m) in gage well, 8.75 ft (2.667 m) outside from floodmarks, from rating curve extended above 1,400 ft^3/s (39.6 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 9.6 ft^3/s (0.27 m^3/s) Nov. 24, 1941, gage height, 1.69 ft (0.515 m); minimum daily, 20 ft^3/s (0.57 m^3/s) Dec. 20, 30, 1963, Jan. 28, 29, 31, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936 reached a stage of 8.6 ft (2.62 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s (9.91 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1330	*1,740	49.3	*5.24	1.597	Feb. 23	2330	633	17.9	3.90	1.189

Minimum discharge, 25 ft^3/s (0.71 m^3/s) Oct. 3, 17, 21, 22, 23, 24; minimum gage height, 2.04 ft (0.622 m) Jan. 4, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	56	52	47	48	160	69	86	63	102	65	52
2	47	54	52	46	133	145	71	88	69	136	63	64
3	47	54	58	47	86	132	68	83	77	120	65	61
4	61	55	56	44	60	123	67	82	106	112	87	69
5	44	53	55	48	55	122	71	79	90	112	67	62
6	47	53	54	49	53	115	70	80	84	114	65	56
7	55	53	53	50	52	108	67	79	81	103	64	57
8	55	55	54	47	52	103	66	76	79	97	64	63
9	55	60	58	49	50	101	67	73	106	94	62	60
10	52	55	64	49	49	99	66	72	93	93	60	56
11	52	51	58	46	1170	98	72	84	83	91	60	55
12	47	52	57	46	237	93	94	93	79	87	59	56
13	52	51	56	46	121	91	96	77	78	84	57	55
14	47	51	54	49	116	87	124	75	101	82	57	54
15	47	52	54	49	114	84	127	75	160	78	55	61
16	47	50	55	49	96	85	122	84	141	77	55	61
17	45	53	53	48	105	83	122	76	134	76	54	58
18	49	54	54	47	100	81	115	74	122	72	53	57
19	51	52	54	47	112	80	105	74	115	69	53	55
20	46	51	51	47	242	77	103	73	117	126	51	54
21	46	49	48	47	241	75	100	71	110	122	53	54
22	44	48	48	47	195	72	96	70	145	88	50	54
23	43	48	48	47	279	72	98	68	139	79	48	54
24	42	78	48	46	496	71	97	66	125	75	49	53
25	100	72	45	46	325	70	90	66	139	73	50	53
26	75	61	46	46	248	69	85	65	138	83	48	51
27	60	57	47	47	202	69	83	65	119	89	49	52
28	58	58	47	45	179	66	86	66	115	77	48	51
29	57	56	47	46	---	66	109	72	111	77	47	51
30	56	52	47	45	---	71	91	65	106	71	47	52
31	54	---	47	45	---	69	---	73	---	68	58	---
TOTAL	1628	1644	1620	1457	5216	2837	2697	2330	3225	2827	1763	1691
MEAN	52.5	54.8	52.3	47.0	186	91.5	89.9	75.2	108	91.2	56.9	56.4
MAX	100	78	64	50	1170	160	127	93	160	136	87	69
MIN	42	48	45	44	48	66	66	65	63	68	47	51
CFSM	.60	.63	.60	.54	2.13	1.05	1.03	.86	1.24	1.05	.65	.65
IN.	.69	.70	.69	.62	2.23	1.21	1.15	.99	1.38	1.21	.75	.72

CAL YR 1980 TOTAL 36095 MEAN 98.6 MAX 406 MIN 42 CFSM 1.13 IN 15.40
WTR YR 1981 TOTAL 28935 MEAN 79.3 MAX 1170 MIN 42 CFSM .91 IN 12.34

01547100 SPRING CREEK AT MILESBURG, PA

LOCATION.--Lat 40°55'54", long 77°47'13", Centre County, Hydrologic Unit 02050204, on left bank 60 ft (18 m) downstream from privately-owned bridge, 400 ft (122 m) west of State Route 144, 0.8 mi (1.3 km) upstream from mouth and Milesburg.

DRAINAGE AREA.--142 mi^2 (368 km^2).

PERIOD OF RECORD.--May 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 696.42 ft (212.269 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery and by Rockview Penitentiary. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 235 ft^3/s (6.655 m^3/s), 22.41 in/yr (569 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,170 ft^3/s (231 m^3/s) June 23, 1972, gage height, 13.20 ft (4.023 m), from peak-stage indicator, from rating curve extended above 900 ft^3/s (25.5 m^3/s) on basis of computation of peak flow over dam; minimum, 60 ft^3/s (1.70 m^3/s) Sept. 30, 1969, gage height, 2.22 ft (0.677 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 570 ft^3/s (16.1 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 11	1400	*2,590	73.3	*8.19	2.496	Feb. 24	0100	1,130	32.0	5.74	1.750
Feb. 20	1545	626	17.7	4.48	1.366	July 20	1745	664	18.8	4.59	1.399

Minimum discharge, 94 ft^3/s (2.66 m^3/s) Feb. 9, gage height, 2.35 ft (0.716 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	135	139	125	123	350	167	221	165	230	165	139
2	133	133	142	123	217	323	173	223	178	275	163	157
3	134	133	147	123	180	298	169	213	189	248	163	152
4	139	134	141	117	145	278	169	205	228	242	200	164
5	129	132	141	123	135	274	172	201	205	237	177	157
6	131	133	139	126	135	260	170	201	197	231	168	150
7	136	132	139	127	132	246	168	197	192	218	166	154
8	133	134	139	120	133	236	167	190	187	205	166	160
9	134	137	143	123	129	228	167	185	259	199	162	156
10	134	137	149	125	132	223	166	182	228	195	158	146
11	136	131	141	120	1900	223	178	207	207	191	157	143
12	131	131	139	118	467	219	210	230	205	185	156	142
13	133	130	138	117	259	215	212	201	205	182	153	141
14	129	129	135	124	216	209	278	198	244	179	152	140
15	133	129	135	125	204	203	280	199	316	173	151	146
16	132	129	136	124	207	205	266	216	294	171	149	148
17	131	131	133	121	225	198	268	199	285	169	147	142
18	133	136	133	120	225	194	250	192	263	163	144	140
19	134	131	133	121	248	193	230	191	250	159	143	138
20	132	130	127	121	540	188	220	187	256	270	142	136
21	131	128	126	122	543	185	219	182	245	266	142	135
22	131	128	125	122	444	179	210	178	290	201	140	136
23	131	128	127	122	579	178	212	173	280	186	137	135
24	131	170	128	122	940	175	210	172	255	179	136	133
25	209	170	120	122	657	172	205	171	284	176	138	132
26	172	152	124	122	516	170	200	168	285	198	136	130
27	145	146	126	121	428	171	196	168	251	217	135	131
28	141	147	124	120	384	166	205	176	243	187	135	129
29	139	146	125	120	---	164	242	181	236	187	133	129
30	136	141	126	118	---	172	226	170	230	176	133	130
31	135	---	124	117	---	168	---	181	---	171	148	---
TOTAL	4259	4103	4144	3771	10443	6663	6205	5953	7152	6266	4695	4271
MEAN	137	137	134	122	373	215	207	192	238	202	151	142
MAX	209	170	149	127	1900	350	280	230	316	275	200	164
MIN	129	128	120	117	123	164	166	168	165	159	133	129
CFSM	.97	.97	.94	.86	2.63	1.51	1.46	1.35	1.68	1.42	1.06	1.00
IN.	1.12	1.07	1.09	.99	2.74	1.75	1.63	1.56	1.87	1.64	1.23	1.12

CAL YR 1980 TOTAL 82168 MEAN 225 MAX 797 MIN 120 CFSM 1.59 IN 21.53
WTR YR 1981 TOTAL 67930 MEAN 186 MAX 1900 MIN 117 CFSM 1.31 IN 17.80

01547200 BALD EAGLE CREEK BELOW SPRING CREEK AT MILESBURG, PA

LOCATION.--Lat 40°56'35", long 77°47'12", Centre County, Hydrologic Unit 02050204, on right bank 130 ft (40 m) downstream from bridge on State Highway 144 at Milesburg, 250 ft (76 m) downstream from Spring Creek.

DRAINAGE AREA.--265 mi² (686 km²).

PERIOD OF RECORD.--October 1955 to current year. Monthly discharge only for October, November 1955 published in WSP 1722. Prior to October 1967, published as North Bald Eagle Creek below Spring Creek at Milesburg.

GAGE.--Water-stage recorder. Datum of gage is 682.49 ft (208.023 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 31, 1956, nonrecording gage at site 130 ft (40 m) upstream at same datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 401 ft³/s (11.36 m³/s), 20.51 in/yr (521 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,300 ft³/s (603 m³/s) June 23, 1972, gage height, 11.67 ft (3.557 m), from floodmark in gage well, from rating curve extended above 9,000 ft³/s (255 m³/s); minimum, discharge, 50 ft³/s (1.42 m³/s) Aug. 3, 1966, gage height, -0.80 ft (-0.244 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,700 ft³/s (76.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1845	3,080	87.2	3.95	1.204	Feb. 23	2300	*5,500	156	*5.70	1.737
Feb. 20	1330	4,940	140	5.36	1.634	July 21	0045	4,580	130	5.12	1.561

Minimum discharge, 114 ft³/s (3.23 m³/s) Jan. 12, gage height, -0.60 ft (-0.183 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	147	233	150	140	639	277	697	222	333	257	167
2	139	145	265	148	235	552	310	586	261	589	242	188
3	141	144	338	147	239	486	290	481	317	526	232	188
4	149	146	274	136	220	432	288	421	594	458	266	214
5	139	143	243	140	197	429	300	383	433	436	236	228
6	139	143	232	143	196	400	294	371	371	425	218	190
7	143	142	231	144	183	370	274	347	332	363	213	189
8	139	147	221	137	175	349	262	315	301	328	211	315
9	141	157	225	134	168	339	264	294	735	303	201	371
10	140	171	327	137	166	335	258	285	596	284	191	245
11	142	155	264	137	2170	338	277	487	481	265	186	212
12	138	149	243	132	1330	335	505	1210	394	250	184	197
13	138	146	236	133	695	329	652	778	357	240	179	191
14	136	144	218	142	500	313	1150	602	440	231	176	182
15	137	144	182	143	380	300	1220	564	1220	218	174	198
16	136	142	216	144	410	312	840	586	835	215	173	211
17	135	142	196	141	460	299	701	467	638	212	166	194
18	137	150	194	139	600	280	591	407	501	201	161	181
19	137	151	189	140	1310	283	484	375	432	193	159	173
20	134	147	145	140	4030	276	434	346	437	1260	156	169
21	134	142	157	140	2710	274	388	319	419	2090	156	164
22	133	149	156	140	1630	262	362	298	595	633	152	168
23	132	151	159	141	2460	256	406	276	548	411	149	164
24	132	342	162	139	3310	252	497	258	451	333	148	158
25	295	501	151	138	1660	246	426	251	505	300	150	154
26	321	349	150	141	1110	238	382	245	639	453	149	152
27	194	273	151	147	839	244	358	240	503	693	147	151
28	172	277	150	151	721	241	398	247	442	441	147	147
29	161	285	152	152	---	235	996	262	392	408	145	146
30	153	246	156	143	---	258	871	234	362	330	144	148
31	149	---	152	137	---	290	---	259	---	285	175	---
TOTAL	4755	5670	6368	4376	28244	10192	14755	12889	14753	13707	5643	5755
MEAN	153	189	205	141	1009	329	492	416	492	442	182	192
MAX	321	501	338	152	4030	639	1220	1210	1220	2090	266	371
MIN	132	142	145	132	140	235	258	234	222	193	144	146
CFSM	.58	.71	.77	.53	3.81	1.24	1.86	1.57	1.86	1.67	.69	.73
IN.	.67	.80	.89	.61	3.96	1.43	2.07	1.81	2.07	1.92	.79	.81

CAL YR 1980 TOTAL 129960 MEAN 355 MAX 2600 MIN 132 CFSM 1.34 IN 18.24
WTR YR 1981 TOTAL 127107 MEAN 348 MAX 4030 MIN 132 CFSM 1.31 IN 17.84

01547400 BALD EAGLE CREEK NEAR MILESBURG

LOCATION.--Lat 40°58'31", long 75°44'35", Centre County, Hydrologic Unit 02050204, at highway bridge at Curtin, 500 ft (152 m) downstream from Antis Run, 250 ft (76 m) downstream from Nittany Creek, and 3.5 mi (5.6 km) downstream from Milesburg.

DRAINAGE AREA.--296 mi² (767 km²).

PERIOD OF RECORD.--July 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1967 to current year.

REMARKS.--The thermograph at this site records continuous water temperature of the inflow to Foster Joseph Sayers Lake. Temperature recorder clock stopped Jan. 12-16 (range in temperature 0.5 to 2.0°C).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 29.0°C July 17, 18, Aug. 9, 23, 1968, June 27, 30, July 16, 1969; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.0°C July 7, 10, 12; minimum, 0.0°C February 11, 12, 13, 14.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	14.0	10.0	9.0	5.5	4.0	3.5	2.0	3.5	1.5	5.0	4.5
2	15.5	13.5	10.5	8.5	6.5	5.5	4.0	2.0	3.5	2.0	5.5	4.5
3	15.5	12.0	10.0	7.0	6.0	4.0	3.0	1.5	3.0	1.0	5.5	3.5
4	15.0	12.0	11.0	9.5	5.0	3.0	3.0	1.0	3.0	1.0	4.5	2.0
5	13.0	10.0	10.5	9.5	4.5	2.0	3.0	1.0	3.5	1.0	4.5	3.5
6	13.0	9.0	10.0	8.0	4.0	2.0	3.0	1.0	2.0	1.0	5.5	3.5
7	13.5	10.5	11.0	8.5	5.0	3.5	4.0	1.5	4.0	1.5	5.0	3.0
8	14.5	10.0	11.0	9.5	8.0	5.0	3.0	1.0	3.5	2.0	4.5	3.0
9	16.0	11.0	9.5	9.0	8.0	6.5	1.5	.5	4.0	1.0	5.5	4.0
10	13.0	10.0	9.5	8.0	6.5	5.5	1.5	1.0	3.5	1.5	5.5	4.0
11	15.5	12.0	9.0	8.0	5.5	4.0	1.0	.5	3.5	.0	5.0	3.5
12	13.5	12.0	9.0	7.0	4.5	4.0	---	---	.0	.0	5.5	2.0
13	13.5	11.0	9.5	6.5	5.5	4.5	---	---	2.0	.0	7.0	4.0
14	13.5	11.0	9.5	8.0	4.5	3.5	---	---	3.5	.0	5.5	2.0
15	13.5	11.5	9.5	8.5	3.5	3.0	---	---	4.0	1.0	7.0	2.0
16	14.5	11.0	9.5	7.0	4.0	3.5	---	---	5.0	1.5	6.0	4.0
17	14.5	12.0	7.0	5.5	5.0	3.5	1.5	1.0	4.0	3.0	5.0	2.0
18	14.5	13.5	6.0	5.5	4.0	3.0	2.0	1.0	4.0	1.0	4.5	2.0
19	14.0	13.0	8.0	6.0	5.0	3.0	3.5	2.0	3.5	1.0	4.5	2.0
20	13.0	11.5	7.0	5.5	4.5	2.0	3.5	3.0	4.5	3.0	3.5	2.0
21	11.5	10.0	6.0	5.0	3.5	1.5	4.5	3.0	6.0	4.5	6.5	1.5
22	11.0	8.5	8.0	5.5	3.5	1.0	3.5	3.5	6.5	5.5	5.5	3.5
23	10.5	7.0	6.0	5.0	4.5	2.0	4.5	3.5	6.5	4.5	8.0	3.5
24	10.0	7.0	6.0	5.0	3.5	2.0	4.5	3.5	6.5	4.5	7.0	4.0
25	9.5	9.0	6.0	5.0	3.5	1.0	5.5	3.0	5.5	4.0	6.5	3.5
26	9.0	8.0	5.5	4.0	3.5	1.0	5.0	4.0	5.0	4.0	9.0	3.5
27	10.0	8.5	4.5	4.0	3.5	1.5	5.0	4.5	6.0	3.5	9.0	6.0
28	10.0	9.5	4.5	4.5	3.5	1.5	5.0	3.5	5.0	4.0	10.5	4.5
29	10.5	9.0	5.0	4.5	4.5	3.5	4.5	3.0	---	---	11.0	5.5
30	11.0	8.5	5.5	4.5	5.5	4.5	4.5	2.0	---	---	9.5	8.5
31	11.0	8.5	---	---	4.0	3.0	4.5	1.0	---	---	13.5	8.0
MONTH	17.0	7.0	11.0	4.0	8.0	1.0	5.5	.5	6.5	.0	13.5	1.5

01547400 BALD EAGLE CREEK NEAR MILESBURG, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	8.5	10.0	7.0	19.0	14.5	19.5	16.5	20.0	16.0	18.0	17.0
2	12.0	8.5	12.0	7.0	16.5	15.5	18.5	16.5	21.0	16.0	17.0	16.5
3	13.0	8.5	13.5	6.5	15.5	14.5	19.0	16.5	21.0	18.0	16.5	16.5
4	14.5	10.5	15.5	8.5	18.5	14.5	18.5	16.0	21.0	18.0	16.5	16.0
5	13.0	10.5	14.0	10.0	20.0	14.5	18.5	15.5	21.5	19.0	18.0	16.0
6	11.0	8.0	13.0	9.0	20.0	16.5	20.5	16.0	20.5	18.0	20.0	16.0
7	11.5	6.0	12.0	6.5	20.5	15.5	23.0	17.0	21.5	18.5	19.5	18.0
8	13.5	7.0	13.5	8.0	19.5	15.0	21.5	18.0	22.0	18.5	18.5	17.0
9	12.0	9.5	14.5	9.0	19.0	15.0	22.0	19.0	21.5	19.0	18.0	15.0
10	15.0	8.0	15.0	11.0	15.5	14.0	23.0	19.5	21.5	18.0	18.0	14.5
11	13.5	11.0	14.5	12.0	17.0	13.5	22.0	18.0	21.5	18.0	18.5	15.0
12	13.0	10.0	12.0	9.0	20.0	15.0	23.0	18.5	21.5	18.5	20.0	16.0
13	10.5	9.0	12.0	7.0	20.5	16.5	21.5	18.5	20.0	16.5	19.0	15.5
14	10.0	8.5	15.5	9.5	19.5	18.0	22.0	18.5	20.5	16.5	20.0	16.0
15	10.5	6.0	14.5	12.0	21.5	17.0	20.5	16.5	19.5	17.0	18.5	16.0
16	12.0	5.5	12.0	10.0	22.0	18.5	19.0	16.5	20.0	16.5	19.5	15.0
17	10.0	9.0	14.5	8.5	21.0	18.5	20.5	15.5	20.0	14.5	17.0	15.0
18	15.0	10.0	14.0	10.5	21.5	15.5	21.0	16.0	19.5	13.5	17.0	13.5
19	12.0	9.0	12.0	10.0	22.0	17.0	21.0	16.5	19.5	14.5	14.5	13.0
20	12.0	9.0	15.0	9.0	20.0	17.0	20.0	18.0	20.0	14.5	15.0	12.0
21	11.5	6.5	15.5	10.0	19.0	16.0	19.5	18.0	19.5	16.5	14.0	11.0
22	11.5	7.0	18.0	11.5	19.0	16.5	20.0	16.5	19.0	15.0	14.0	13.0
23	10.0	9.0	19.0	14.5	20.0	15.5	20.0	14.5	19.0	13.5	14.0	10.5
24	9.5	8.0	19.5	15.0	20.0	15.0	18.0	15.5	18.0	14.5	15.5	10.5
25	8.0	6.5	20.0	16.0	19.0	16.5	15.5	14.5	18.0	14.5	15.5	10.5
26	10.5	6.0	19.0	16.0	17.0	15.0	19.5	15.0	19.5	14.5	18.0	13.5
27	13.5	9.0	19.5	16.0	18.5	13.0	19.5	15.5	20.0	15.0	16.5	14.5
28	13.0	10.0	18.0	15.5	20.0	13.5	18.0	15.5	19.0	15.5	15.5	13.0
29	11.0	9.0	19.0	16.5	20.5	14.5	18.0	15.5	19.5	15.5	14.0	11.0
30	11.5	8.0	20.0	16.5	21.0	16.5	20.0	14.0	19.0	16.0	13.0	10.0
31	---	---	19.5	16.5	---	---	20.0	15.5	18.0	16.0	---	---
MONTH	15.0	5.5	20.0	6.5	22.0	13.0	23.0	14.0	22.0	13.5	20.0	10.0

01547500 BALD EAGLE CREEK AT BLANCHARD, PA

LOCATION.--Lat 41°03'06", long 77°36'17", Centre County, Hydrologic Unit 02050204, on left bank, 0.4 mi (0.6 km) downstream from Foster Joseph Sayers Lake, 0.7 mi (1.1 km) upstream from Marsh Creek, and 0.9 mi (1.4 km) south of Blanchard.

DRAINAGE AREA.--339 mi^2 (878 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1954 to current year. Prior to October 1967, published as North Bald Eagle Creek at Blanchard.

REVISED RECORDS.--WSP 1903: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 579.79 ft (176.720 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated since March 1971 by Foster Joseph Sayers Lake (station 01547480) 0.4 mi (0.6 km) upstream.

AVERAGE DISCHARGE.--27 years, 456 ft^3/s (12.91 m^3/s), 18.33 in/yr (466 mm/yr), adjusted for storage since March 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft^3/s (286 m^3/s) Mar. 10, 1964, gage height, 11.59 ft (3.533 m), from rating curve extended above 4,100 ft^3/s (116 m^3/s); no flow parts of June 16, Nov. 10, 1970, May 12, 18, 19, 1976, Mar. 6, 1979, result of shutoff at Foster Joseph Sayers Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,070 ft^3/s (86.9 m^3/s) Feb. 27, gage height, 6.79 ft (2.070 m); minimum daily, 110 ft^3/s (3.12 m^3/s) April 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	146	1120	158	135	2790	147	731	252	384	271	183
2	160	146	767	144	166	2630	138	732	247	568	271	240
3	160	146	481	134	277	2450	132	652	300	622	271	391
4	160	146	335	132	278	2250	132	555	550	534	271	313
5	160	359	276	132	214	1190	128	474	605	535	269	313
6	160	140	224	132	214	521	126	475	425	495	231	313
7	160	140	224	156	189	455	126	422	357	474	203	287
8	160	140	224	136	173	455	136	389	271	389	203	266
9	160	168	224	120	183	407	147	390	935	335	203	266
10	160	193	365	118	183	368	127	354	832	317	177	266
11	158	193	349	118	1080	384	110	321	488	275	132	478
12	158	193	300	118	1790	384	128	787	401	242	135	261
13	158	193	250	117	1600	384	144	935	398	236	135	261
14	158	193	250	117	896	384	206	883	508	235	135	370
15	158	193	221	117	659	384	337	793	1040	202	135	261
16	157	389	207	117	600	342	377	758	1030	165	135	261
17	158	525	207	118	575	271	379	636	737	165	135	245
18	160	520	174	118	824	211	383	528	576	165	135	229
19	160	517	158	118	987	179	384	490	490	168	135	231
20	160	514	158	120	279	166	384	434	448	337	135	232
21	160	509	158	120	318	141	385	409	531	1860	135	205
22	160	504	158	128	1510	144	387	384	635	1480	1010	187
23	160	503	158	141	1340	144	390	367	622	616	148	187
24	160	501	158	144	198	145	390	333	493	410	148	187
25	371	679	158	135	1350	147	390	316	485	330	148	187
26	548	1410	158	142	2500	148	390	277	860	449	148	187
27	232	1790	158	143	2860	148	376	247	614	1020	148	187
28	146	1600	158	158	2940	148	381	252	530	591	148	187
29	146	1430	158	158	---	149	599	252	443	546	148	175
30	146	1360	158	158	---	145	669	252	407	360	148	154
31	146	---	158	145	---	145	---	252	---	271	154	---
TOTAL	5560	15440	8252	4112	24318	18209	8528	15080	16510	14776	6200	7510
MEAN	179	515	266	133	869	587	284	486	550	477	200	250
MAX	548	1790	1120	158	2940	2790	669	935	1040	1860	1010	478
MIN	146	140	158	117	135	141	110	247	247	165	132	154
MEAN‡	170	227	224	132	1193	397	553	482	561	478	189	217
CFSM‡	.50	.67	.66	.39	3.52	1.17	1.63	1.42	1.65	1.41	.56	.64
IN.‡	.58	.75	.76	.45	3.67	1.35	1.82	1.64	1.84	1.63	.65	.71

CAL YR 1980 TOTAL 146987 MEAN 402 MAX 2100 MIN 109 MEAN‡ 402 CFSM‡ 1.19 IN.‡ 16.14
WTR YR 1981 TOTAL 144495 MEAN 396 MAX 2940 MIN 110 MEAN‡ 396 CFSM‡ 1.17 IN.‡ 15.85

‡Adjusted for change in contents in Foster Joseph Sayers Lake.

01547500 BALD EAGLE CREEK AT BLANCHARD, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1955 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1956 to September 1957, August 1967 to current year.

REMARKS.--The thermograph at this site records continuous water temperature of the outflow from Foster Joseph Sayers Lake.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 33.0°C June 20, 1957; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C July 21, 22; minimum, 0.5°C February 14, 15.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	18.0	9.5	9.0	4.0	4.0	2.0	1.5	3.0	2.0	3.5	3.5
2	18.0	18.0	9.0	8.5	4.5	4.0	2.0	1.5	2.0	1.5	4.0	3.5
3	18.0	17.0	10.0	8.5	4.5	3.5	2.0	1.5	2.0	1.5	3.5	3.5
4	17.0	16.5	9.5	9.0	3.5	3.5	1.5	1.0	2.0	1.5	3.5	3.5
5	17.0	16.0	9.0	8.5	4.0	3.5	1.5	1.5	3.0	1.5	3.5	3.5
6	---	---	9.5	8.5	4.0	3.5	2.0	1.5	2.0	1.5	3.5	3.5
7	17.0	16.0	9.5	8.5	3.5	3.5	2.0	1.5	3.0	1.5	3.5	3.0
8	---	---	9.0	8.5	4.5	3.5	---	---	1.5	1.0	3.0	2.0
9	16.5	15.5	8.5	8.5	4.5	4.5	---	---	2.0	1.0	3.0	3.0
10	15.5	15.0	8.5	8.0	4.5	4.0	2.0	1.0	2.0	1.5	3.5	3.0
11	16.0	15.0	8.5	8.0	4.5	4.0	1.5	1.0	2.0	1.0	3.5	3.0
12	15.0	14.5	8.5	8.0	4.0	4.0	2.0	1.0	1.5	1.0	3.5	3.0
13	---	---	8.5	7.0	4.0	4.0	1.5	1.0	1.0	1.0	4.0	3.0
14	---	---	8.0	7.0	4.0	3.5	2.0	1.5	1.0	.5	4.0	3.5
15	15.0	14.0	8.0	7.0	3.5	3.0	1.5	1.5	1.0	.5	4.0	3.0
16	15.0	14.0	7.0	6.5	3.0	2.0	2.0	1.0	1.5	1.0	4.0	4.0
17	15.0	14.0	6.5	6.5	3.0	2.0	2.0	1.0	2.0	1.5	4.0	3.5
18	---	---	6.5	6.5	2.0	1.5	1.5	1.0	2.0	2.0	3.5	3.0
19	15.0	14.0	6.5	6.0	3.0	1.5	2.0	1.0	3.0	2.0	3.5	2.0
20	---	---	6.0	6.0	1.5	1.0	1.5	1.0	3.5	3.0	3.5	3.0
21	14.5	13.5	6.0	6.0	2.0	1.0	3.0	1.0	4.0	2.0	4.5	3.0
22	---	---	6.0	5.5	2.0	1.5	1.5	1.0	2.0	2.0	4.0	3.0
23	14.5	13.0	5.5	5.5	3.0	2.0	1.5	1.5	3.5	2.0	5.0	3.0
24	13.0	12.0	5.5	5.5	2.0	2.0	2.0	1.5	5.5	3.0	4.5	3.5
25	12.0	11.0	6.0	5.5	3.0	1.5	3.0	1.5	3.5	3.5	4.5	3.5
26	11.0	11.5	5.5	5.0	3.0	1.5	2.0	1.5	3.5	3.5	5.5	3.5
27	12.0	11.0	5.0	5.0	3.0	1.5	2.0	1.5	4.0	3.5	5.0	4.0
28	11.5	11.0	5.0	4.5	2.0	1.5	3.0	2.0	4.0	3.5	6.0	4.0
29	11.0	10.5	4.5	4.0	2.0	2.0	3.0	2.0	---	---	8.0	5.5
30	11.5	10.0	4.0	4.0	3.0	1.5	3.5	2.0	---	---	7.0	6.0
31	11.5	9.5	---	---	2.0	1.5	4.0	2.0	---	---	9.5	8.0
MONTH	19.0	9.5	10.0	4.0	4.5	1.0	4.0	1.0	5.5	.5	9.5	2.0

01547500 BALD EAGLE CREEK AT BLANCHARD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.5	11.0	10.0	17.0	15.5	20.0	19.0	20.5	19.5	20.0	19.5
2	11.0	9.5	10.5	9.5	17.0	16.5	20.0	19.5	20.5	19.5	20.5	20.5
3	11.5	9.5	11.0	9.5	18.5	17.0	20.5	20.0	20.5	19.5	20.5	20.0
4	11.5	10.0	11.0	10.5	20.0	18.5	20.0	19.5	20.5	19.5	20.0	19.5
5	11.0	10.5	11.5	10.5	20.0	19.5	20.0	19.5	21.0	20.0	20.0	19.5
6	11.5	10.0	11.0	10.0	20.5	19.5	20.5	19.5	20.5	19.5	20.5	19.5
7	12.0	10.0	11.0	10.0	20.0	19.0	21.0	20.0	20.0	19.5	20.0	19.5
8	13.0	10.0	11.5	10.0	20.0	18.5	21.0	20.0	20.0	19.0	20.5	19.5
9	12.0	11.0	12.0	10.5	21.0	18.5	21.5	20.0	20.5	19.0	20.0	19.5
10	12.0	10.0	11.5	11.0	20.5	19.5	21.0	20.5	21.0	19.5	20.5	19.0
11	11.0	10.5	11.5	11.0	19.5	19.0	21.0	19.5	21.0	19.5	20.5	19.5
12	11.5	10.5	14.0	12.0	19.5	18.5	21.0	19.5	21.0	20.0	20.5	19.5
13	11.0	10.5	14.0	13.0	19.0	18.5	22.0	19.5	21.0	19.5	20.0	19.0
14	11.5	11.0	13.5	13.0	19.0	18.5	21.5	20.5	20.5	20.0	20.5	19.5
15	12.0	11.5	---	---	20.5	18.5	21.0	20.0	20.0	19.5	20.0	19.5
16	13.5	11.0	14.5	13.5	21.5	20.0	20.0	19.5	20.5	19.5	20.0	19.0
17	13.0	12.0	---	---	20.5	20.0	20.5	19.5	21.0	19.5	20.0	19.0
18	13.5	12.0	14.5	14.0	20.5	20.0	20.5	19.5	21.0	19.5	20.5	19.0
19	13.0	12.0	---	---	20.5	20.0	20.5	19.5	20.5	19.5	20.0	19.0
20	13.0	11.5	---	---	20.0	18.5	22.0	19.5	21.0	19.5	19.5	19.0
21	13.0	11.5	15.5	14.0	20.5	19.5	23.5	22.0	21.0	19.5	19.5	19.0
22	13.0	12.0	16.0	14.5	---	---	23.5	21.0	21.0	19.5	19.0	18.5
23	13.0	12.0	15.5	14.5	21.0	20.5	21.5	21.0	21.0	19.5	19.0	18.0
24	13.0	12.0	16.0	15.0	20.5	20.0	21.0	20.5	21.0	19.5	19.5	17.0
25	13.0	12.0	17.0	14.5	---	---	20.5	20.0	21.0	19.5	19.0	17.0
26	14.0	12.0	17.0	15.5	---	---	20.5	20.0	21.0	19.5	19.0	17.0
27	14.0	13.5	16.0	15.5	---	---	21.0	20.5	21.0	19.5	19.0	17.0
28	14.5	13.5	16.0	15.5	---	---	20.5	20.0	20.5	19.5	18.5	17.0
29	16.0	14.0	16.0	14.0	20.5	19.5	20.5	20.0	20.5	19.5	18.0	16.5
30	15.0	14.5	16.0	14.5	20.5	20.0	21.0	19.5	21.0	19.5	17.0	16.5
31	---	---	16.5	15.0	---	---	20.5	19.5	20.0	19.5	---	---
MONTH	16.0	8.5	17.0	9.5	21.5	15.5	23.5	19.0	21.0	19.0	20.5	16.5

01547700 MARSH CREEK AT BLANCHARD, PA

LOCATION.--Lat 41°03'34", long 77°36'22", Centre County, Hydrologic Unit 02050204, on right bank 20 ft (6 m) downstream from highway bridge, 0.5 mi (0.8 km) southwest of Blanchard, 0.6 mi (1.0 km) downstream from bridge on U.S. Highway 150, and 0.6 mi (1.0 km) upstream from mouth.

DRAINAGE AREA.--44.1 mi^2 (114.2 km^2).

PERIOD OF RECORD.--October 1955 to current year. Monthly discharge only for October 1955, published in WSP 1722.

REVISED RECORDS.--WDR PA-72-1: 1971 (runoff in cubic feet per second per square mile and in inches).

GAGE.--Water-stage recorder. Datum of gage is 586.16 ft (178.662 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 31, 1956, nonrecording gage at site 20 ft (6 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 58.1 ft^3/s (1.645 m^3/s), 17.93 in/yr (455 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,870 ft^3/s (140 m^3/s) June 23, 1972, gage height, 6.98 ft (2.128 m), from floodmark in gage well, 7.96 ft (2.426 m) outside, from floodmarks, from rating curve extended above 1,000 ft^3/s (28.3 m^3/s) on basis of slope-area measurement of peak flow; no flow Aug. 30, 31, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft^3/s (12.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1800	532	15.1	3.41	1.039
Feb. 20	1130	1,150	32.6	4.21	1.283
Feb. 23	2030	*1,360	38.5	*4.43	1.350

Minimum discharge, 2.2 ft^3/s (0.062 m^3/s) Nov. 17; minimum gage height, 1.84 ft (0.561 m) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	4.6	18	5.2	3.8	108	25	226	19	45	20	8.4
2	2.8	4.3	21	4.9	7.7	88	27	173	24	50	18	9.1
3	3.2	4.3	31	4.8	10	74	27	126	40	43	19	11
4	4.6	4.3	22	4.7	14	62	28	99	75	41	18	12
5	4.8	4.5	20	4.7	14	58	31	81	81	43	17	15
6	3.6	4.3	20	5.2	10	54	31	74	77	50	14	9.4
7	3.2	4.3	20	6.1	8.9	47	28	62	64	46	13	11
8	3.2	4.9	17	5.0	8.0	42	28	52	52	44	12	104
9	3.2	6.4	16	4.6	7.7	39	30	45	112	41	11	109
10	3.2	8.6	22	4.2	7.1	36	28	40	98	37	10	75
11	3.9	6.7	18	3.7	300	36	31	53	91	32	9.5	52
12	4.6	5.7	16	3.1	214	36	39	97	75	28	9.8	39
13	4.3	5.3	16	2.6	125	37	46	90	65	25	8.8	31
14	4.2	5.3	13	2.4	111	34	122	93	78	23	8.4	26
15	4.2	5.0	7.7	2.8	102	32	197	89	108	20	8.4	30
16	4.7	4.8	6.6	2.9	99	32	177	82	106	19	8.6	29
17	4.5	3.9	5.8	3.1	123	31	152	68	101	18	7.4	23
18	4.9	4.3	5.2	3.3	208	27	122	58	83	16	6.6	20
19	5.3	7.2	4.5	3.0	377	25	95	52	80	14	6.4	18
20	7.0	5.8	4.3	2.9	838	25	80	47	72	48	6.0	19
21	7.0	5.1	3.8	2.8	597	24	68	42	60	48	5.6	16
22	7.0	6.3	3.6	2.8	368	24	60	39	56	31	5.3	15
23	7.1	6.9	3.5	2.9	591	24	60	36	44	24	4.9	14
24	7.5	27	4.5	2.9	763	24	77	31	38	20	4.8	12
25	31	41	4.3	3.0	392	23	69	30	56	19	4.8	11
26	25	29	4.1	4.2	244	22	63	27	78	27	4.8	11
27	9.2	22	4.0	5.7	168	22	60	27	74	43	4.4	10
28	7.1	25	3.9	6.4	130	20	73	24	67	30	4.3	10
29	6.2	26	4.5	5.7	---	19	300	27	59	30	4.3	9.3
30	5.3	21	6.8	4.7	---	24	286	23	51	26	4.0	9.1
31	4.8	---	5.8	4.1	---	27	---	23	---	22	6.9	---
TOTAL	199.4	313.8	352.9	124.4	5841.2	1176	2460	2036	2084	1003	286.0	768.3
MEAN	6.43	10.5	11.4	4.01	209	37.9	82.0	65.7	69.5	32.4	9.23	25.6
MAX	31	41	31	6.4	838	108	300	226	112	50	20	109
MIN	2.8	3.9	3.5	2.4	3.8	19	25	23	19	14	4.0	8.4
CFSM	.15	.24	.26	.09	4.74	.86	1.86	1.49	1.58	.74	.21	.58
IN.	.17	.26	.30	.10	4.93	.99	2.08	1.72	1.76	.85	.24	.65

CAL YR 1980 TOTAL 14877.3 MEAN 40.6 MAX 459 MIN 1.8 CFSM .92 IN 12.55
WTR YR 1981 TOTAL 16645.0 MEAN 45.6 MAX 838 MIN 2.4 CFSM 1.03 IN 14.04

01547800 SOUTH FORK BEECH CREEK NEAR SNOW SHOE, PA

LOCATION.--Lat 41°01'30", long °54'15", Centre County, Hydrologic Unit 02050204, on right bank at downstream side of bridge on State Highway 144, 0.6 mi (1.0 km) downstream from Horsehead Run, 2.5 mi (4.0 km) east of Snow Shoe, and 4.2 mi (6.8 km) upstream from confluence with North Fork Beech Creek.

DRAINAGE AREA.--12.2 mi^2 (31.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1959-69. May 1969 to March 1981 (discontinued as a continuous-record station March 1981; converted to a low-flow partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (475 m) from topographic map. October 1958 to May 1970, crest-stage gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years (water years 1970-80), 24.0 ft^3/s (0.680 m^3/s), 26.75 in/yr (679 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft^3/s (33.1 m^3/s) June 23, 1972, gage height, 5.36 ft (1.634 m), from rating curve extended above 600 ft^3/s (17.0 m^3/s) on basis of contracted-opening measurement at gage height, 4.94 ft (1.506 m); minimum, 1.7 ft^3/s (0.048 m^3/s) Oct. 9, 10, 1970; minimum gage height observed 0.69 ft (0.210 m) Oct. 22, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 120 ft^3/s (3.40 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 13	1130	287	8.13	2.99	0.911	Feb. 23	1930	*516	14.6	*3.60	1.097
Feb. 20	0815	497	14.1	3.51	1.070						

Minimum daily discharge, 1.8 ft^3/s (0.051 m^3/s), Oct. 10, 17, 22, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	4.4	13	6.3	5.4	42						
2	2.0	4.1	18	6.0	12	36						
3	2.1	3.9	24	5.8	19	31						
4	2.2	3.9	21	5.8	16	28						
5	2.0	3.9	20	5.8	14	26						
6	1.9	3.7	19	6.2	12	24						
7	2.0	3.6	19	6.9	10	21						
8	1.9	4.5	19	6.4	9.0	19						
9	1.9	5.1	18	6.0	8.2	18						
10	1.8	6.3	20	5.4	7.0	17						
11	2.0	5.2	17	4.6	60	17						
12	1.9	4.6	15	4.4	231	15						
13	1.9	4.4	15	4.5	245	16						
14	1.9	4.2	14	4.6	167	17						
15	1.9	4.0	13	5.4	33	15						
16	1.9	3.7	12	4.9	24	16						
17	1.8	3.7	12	4.6	31	15						
18	2.0	4.0	11	4.4	51	15						
19	2.1	4.2	11	4.2	91	14						
20	2.0	3.7	10	4.1	369	13						
21	1.9	4.1	10	3.9	326	12						
22	1.8	3.7	9.2	3.8	171	11						
23	1.8	3.7	8.2	3.8	239	12						
24	1.8	12	8.6	3.8	269	12						
25	17	19	8.0	3.8	138	12						
26	14	17	7.6	4.3	83	11						
27	7.4	16	7.2	4.7	61	14						
28	6.4	16	6.9	4.2	49	14						
29	5.5	15	7.2	3.9	---	14						
30	4.9	14	7.4	3.7	---	17						
31	4.5	---	6.8	3.6	---	20						
TOTAL	106.1	205.6	408.1	149.8	2750.6	564						
MEAN	3.42	6.85	13.2	4.83	98.2	18.2						
MAX	17	19	24	6.9	369	42						
MIN	1.8	3.6	6.8	3.6	5.4	11						
CFSM	.28	.56	1.08	.40	8.05	1.49						
IN.	.32	.63	1.24	.46	8.39	1.72						

CAL YR 1980 TOTAL 6088.8 MEAN 16.6 MAX 149 MIN 1.8 CFSM 1.36 IN 18.56

01547800 SOUTH FORK BEECH CREEK NEAR SNOW SHOE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to August 1981 (discontinued).

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MAR 23...	1345	11	65	6.2	5.5	.1	5.0	4	10	42
AUG 13...	1450	7.4	44	5.8	18.5	--	--	3	9.7	25

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAR 23...	.06	1.2	90	70	20	150	10	140	1	.03
AUG 13...	.03	.50	260	210	50	90	0	100	2	.04

BEST DOCUMENT AVAILABLE

01547950 BEECH CREEK AT MONUMENT, PA

LOCATION.--Lat 41°06'42", long 77°42'09", Centre County, Hydrologic Unit 02050204, on right bank 800 ft (244 m) downstream from bridge at Monument, 850 ft (259 m) downstream from Monument Run, 0.6 mi (1.0 km) upstream from Twin Run, and 8.7 mi (14.0 km) upstream from mouth.

DRAINAGE AREA.--152 mi^2 (394 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 750 ft (229 m) from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--13 years, 285 ft^3/s (8.071 m^3/s), 25.53 in/yr (648 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft^3/s (276 m^3/s) June 23, 1972, gage height, 15.22 ft (4.639 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s) on basis of slope-area measurement of peak flow; minimum, 8.8 ft^3/s (0.25 m^3/s) Nov. 17, 1980; minimum gage height, 5.08 ft (1.548 m) Oct. 15, 18, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)			(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 20	1530	3,140	88.9	10.03	3.057	Feb. 23	2245	*3,640	103	*10.46	3.188

Minimum discharge, 8.8 ft^3/s (0.25 m^3/s) Nov. 17, gage height, 5.10 ft (1.554 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	29	90	60	73	618	166	921	135	282	216	70
2	17	27	105	57	113	525	196	759	162	311	202	78
3	19	25	169	54	183	452	190	614	197	292	197	87
4	25	27	154	52	163	393	196	518	293	261	185	113
5	20	26	151	50	137	365	211	451	259	319	169	137
6	19	24	148	60	113	330	208	410	250	596	153	105
7	19	23	140	66	94	293	194	362	231	538	142	114
8	19	30	142	63	84	264	186	315	207	448	133	229
9	18	34	140	59	76	244	186	281	589	382	121	299
10	16	50	167	56	70	231	180	257	598	327	110	248
11	26	42	150	52	350	225	174	306	528	282	108	207
12	25	32	143	51	937	212	223	575	437	246	120	171
13	20	29	141	50	841	212	239	532	381	219	97	145
14	19	28	134	52	620	199	362	522	556	197	90	125
15	18	28	116	56	435	187	497	509	779	175	87	149
16	17	26	104	55	350	188	515	510	727	159	87	139
17	17	19	92	53	400	181	519	445	655	146	79	118
18	17	22	82	52	500	169	478	404	536	132	70	103
19	18	42	74	51	819	166	411	371	466	121	66	94
20	17	30	67	52	2560	160	368	338	436	239	62	100
21	17	19	63	52	2640	156	329	304	398	454	58	87
22	16	35	61	53	1750	149	299	275	430	473	55	83
23	16	27	60	54	2040	142	311	247	398	395	52	79
24	16	60	80	54	2820	140	364	223	352	330	51	70
25	109	144	74	56	1710	133	329	205	385	285	52	64
26	153	112	69	60	1170	126	307	189	466	293	49	60
27	61	97	66	64	885	133	290	178	405	408	46	57
28	47	100	65	58	730	130	330	171	378	319	44	56
29	41	104	74	52	---	123	827	183	343	317	44	53
30	34	94	78	50	---	141	1020	158	312	276	43	50
31	30	---	96	48	---	176	---	154	---	243	98	---
TOTAL	922	1385	3295	1702	22663	7163	10105	11687	12289	9465	3086	3490
MEAN	29.7	46.2	106	54.9	809	231	337	377	410	305	99.5	116
MAX	153	144	169	66	2820	618	1020	921	779	596	216	299
MIN	16	19	60	48	70	123	166	154	135	121	43	50
CFSM	.20	.30	.70	.36	5.32	1.52	2.22	2.48	2.70	2.01	.66	.76
IN.	.23	.34	.81	.42	5.55	1.75	2.47	2.86	3.01	2.32	.76	.85

CAL YR 1980	TOTAL 62124	MEAN 170	MAX 1300	MIN 15	CFSM 1.12	IN 15.20
WTR YR 1981	TOTAL 87252	MEAN 239	MAX 2820	MIN 16	CFSM 1.57	IN 21.35

01547950 BEECH CREEK AT MONUMENT, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1968 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1968 to May 1980.
pH: December 1968 to May 1980.
WATER TEMPERATURES: December 1968 to May 1980.
DISSOLVED OXYGEN: October 1975 to September 1977.

INSTRUMENTATION.--Water-quality monitor since December 1968.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1969-1975, 1979-1980): Maximum recorded, 522 micromhos Sept. 16, 1978; minimum, 71 micromhos Mar. 5, 1979.
pH (Water years 1969, 1970, 1973-1976, 1979, 1980): Maximum, 7.3 units Dec. 17, 1969; minimum, 2.9 units June 29, 30, 1969.
WATER TEMPERATURES (Water years 1969-1976, 1978, 1979, 1980): Maximum, 29.0°C July 23, 1978; minimum, 0.0°C on many days during winter periods.

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 22...	0915	17	620	3.1	6.0	1.7	84	--	250	400
NOV 25...	1515	135	390	3.8	4.0	.9	45	--	130	205
DEC 29...	0945	E74	340	3.6	.5	.9	45	--	110	171
JAN 29...	0915	E52	425	3.7	.5	1.0	50	--	160	229
FEB 24...	0945	2830	90	4.6	5.5	.4	20	1	26	46
MAR 24...	1030	128	265	3.9	5.0	1.3	65	--	100	261
APR 22...	0830	289	162	4.3	6.0	.5	25	--	53	82
MAY 19...	0850	358	180	4.2	9.5	>.6	--	--	52	102
JUN 16...	0900	740	135	4.1	14.5	.4	20	--	40	84
JUL 16...	1430	160	220	4.1	17.5	.5	25	--	66	129
AUG 13...	0815	99	305	4.0	16.0	1.0	50	--	110	205
SEP 14...	1615	149	222	4.1	18.0	.4	20	--	67	122

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 22...	.54	18.4	1200	200	1000	7000	0	7000	1	.05
NOV 25...	.28	74.7	1500	300	1200	3500	0	3600	7	2.6
DEC 29...	.23	--	1300	200	1100	2900	0	2900	3	--
JAN 29...	.31	--	1100	170	930	3600	0	4000	1	--
FEB 24...	.06	351	1300	950	350	560	40	520	75	573
MAR 24...	.35	90.2	700	30	670	2500	0	2600	1	.35
APR 22...	.11	64.0	500	50	450	1100	0	1100	1	.78
MAY 19...	.14	98.6	600	590	10	1200	0	1200	3	2.9
JUN 16...	.11	168	560	170	390	910	0	920	20	40
JUL 16...	.18	55.7	310	30	280	1800	100	1700	1	.43
AUG 13...	.28	54.8	360	30	330	3000	0	3000	1	.27
SEP 14...	.17	49.1	280	70	210	1700	0	1700	1	.40

01548000 BALD EAGLE CREEK AT BEECH CREEK STATION, PA

LOCATION.--Lat 41°03'55", long 77°34'03", Clinton County, Hydrologic Unit 02050204, at downstream end of center pier of abandoned bridge just downstream from Beech Creek, at Beech Creek Station, and 3 mi (4.8 km) downstream from Foster Joseph Sayers Lake.

DRAINAGE AREA.--559 mi² (1,448 km²).

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1967, published as North Bald Eagle Creek at Beech Creek Station.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1111: 1936(M). WSP 1302: 1911(M), 1912-15, 1918, 1922, 1923-25(M), 1931. WSP 1502: 1919, 1920(M).

GAGE.--Water-stage recorder. Datum of gage is 571.74 ft (174.266 m) Pennsylvania Department of Transportation datum. Prior to Jan. 10, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good. Several observations of water temperature were made during the year. Flow regulated since March 1971 by Foster Joseph Sayers Lake (station 01547480) 3 mi (4.8 km) upstream.

AVERAGE DISCHARGE.--71 years, 809 ft³/s (22.91 m³/s), 19.69 in/yr (500 mm/yr), adjusted for storage since March 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s (725 m³/s) Mar. 18, 1936, gage height, 14.42 ft (4.395 m), from rating curve extended above 12,000 ft³/s (340 m³/s); minimum, 29 ft³/s (0.82 m³/s) Aug. 22, 1930, gage height, 1.21 ft (0.369 m); minimum daily, 80 ft³/s (2.27 m³/s) Jan. 16, 24, 25, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,490 ft³/s (184 m³/s) Feb. 24, gage height, 6.87 ft (2.094 m); minimum daily, 158 ft³/s (4.47 m³/s) Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	173	1340	230	185	3770	333	2090	361	741	538	278
2	177	173	928	215	238	3440	356	1840	389	955	515	315
3	181	169	713	200	360	3160	342	1510	501	1020	504	543
4	181	173	498	193	380	2870	349	1240	896	870	485	450
5	185	405	420	181	310	1750	366	1050	924	912	466	491
6	181	162	368	197	287	938	361	984	725	1320	413	453
7	181	158	373	231	266	815	344	867	636	1190	372	417
8	177	162	363	224	247	771	344	756	519	980	364	611
9	177	201	363	197	256	704	356	713	1780	822	352	713
10	173	247	538	197	257	643	334	645	1620	734	320	630
11	177	242	507	197	1660	647	313	650	1160	635	263	798
12	185	234	441	198	2630	632	385	1470	945	548	279	510
13	181	230	390	199	2220	634	432	1610	866	512	258	481
14	181	226	379	198	1450	616	710	1550	1230	478	251	569
15	181	226	319	203	1150	599	1100	1420	2150	425	247	475
16	177	409	343	205	1060	566	1130	1400	2050	365	247	475
17	177	575	319	205	1080	483	1110	1170	1630	351	241	430
18	177	563	284	205	1560	407	1030	979	1280	336	231	388
19	177	594	271	205	2390	376	922	901	1200	323	226	373
20	177	581	202	205	4700	357	853	796	1080	541	222	373
21	177	557	185	201	4580	328	793	726	1080	2450	218	338
22	177	563	221	206	4560	320	750	661	1220	2290	1160	305
23	177	557	242	221	4920	312	765	610	1140	1130	214	296
24	173	612	249	210	5440	308	843	547	933	814	209	282
25	428	912	234	197	4400	302	787	508	965	668	211	273
26	774	1680	228	204	4590	294	754	449	1550	725	209	273
27	330	2130	242	209	4340	299	723	407	1150	1670	206	264
28	201	1920	235	232	4120	297	784	396	1020	1010	205	260
29	193	1720	236	227	---	289	1890	416	880	947	205	251
30	181	1620	241	218	---	304	2200	387	795	731	203	221
31	177	---	234	195	---	344	---	383	---	571	253	---
TOTAL	6568	18174	11906	6405	59636	27575	21759	29131	32675	27064	10087	12536
MEAN	212	606	384	207	2130	890	725	940	1089	873	325	418
MAX	774	2130	1340	232	5440	3770	2200	2090	2150	2450	1160	798
MIN	173	158	185	181	185	289	313	383	361	323	203	221
MEAN‡	203	318	342	206	2454	700	994	936	1100	874	314	385
CFSM‡	.36	.57	.61	.37	4.39	1.25	1.78	1.67	1.97	1.56	.56	.69
IN.‡	.42	.64	.70	.43	4.57	1.44	1.99	1.93	2.20	1.80	.65	.77

CAL YR 1980 TOTAL 245925 MEAN 672 MAX 4570 MIN 158 MEAN‡ 672 CFSM‡ 1.20 IN.‡ 16.36
WTR YR 1981 TOTAL 263516 MEAN 722 MAX 5440 MIN 158 MEAN‡ 722 CFSM‡ 1.29 IN.‡ 17.54

‡Adjusted for change in contents in Foster Joseph Sayers Lake.

01548403 BABB CREEK AT MORRIS, PA.

LOCATION.--Lat 41°35'43", long 77°17'39", Tioga County, Hydrologic Unit 02050205, at bridge on State Route 287 at Morris, 0.4 mi (0.6 km) upstream from Wilson Creek.

DRAINAGE AREA.--53.0 mi^2 (137 km^2).

PERIOD OF RECORD.--November 1977 to August 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT										
09...	1030	4.6	117	4.5	10.5	.3	15	0	0	0
NOV										
07...	1445	6.6	130	6.5	7.5	.3	14	5	0	4
DEC										
11...	1315	43	91	6.8	1.0	.2	11	6	0	5
JAN										
21...	1330	8.5	110	6.0	.0	.2	10	5	0	4
FEB										
19...	1015	340	61	7.3	1.0	.2	10	7	0	6
MAR										
18...	1200	29	100	5.6	1.0	.4	18	3	0	3
24...	1530	34	83	5.2	3.5	.5	25	--	--	2
AUG										
11...	1245	5.4	80	5.4	24.0	.2	10	--	--	3

DATE	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT										
09...	.0	55	--	--	--	280	140	140	310	130
NOV										
07...	2.5	35	--	--	--	560	300	260	60	0
DEC										
11...	1.5	20	--	--	--	140	--	<50	40	0
JAN										
21...	8.0	25	--	--	--	800	60	700	130	70
FEB										
19...	.6	17	--	--	--	600	400	200	690	580
MAR										
18...	12	20	--	--	--	800	80	700	110	0
24...	--	31	64	.09	5.8	--	--	--	150	70
AUG										
11...	--	34	73	.10	1.0	--	--	--	130	60

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT									
09...	180	420	50	370	80	10	70	1	.01
NOV									
07...	60	460	0	460	80	0	80	3	.05
DEC									
11...	40	330	0	330	50	0	50	1	.12
JAN									
21...	60	390	30	360	70	10	60	2	.05
FEB									
19...	110	260	40	220	40	20	20	25	23
MAR									
18...	110	360	10	350	10	0	40	6	.47
24...	80	450	10	440	--	--	--	1	.09
AUG									
11...	70	480	0	550	--	--	--	1	.01

01548408 WILSON CREEK ABOVE SAND RUN NEAR ANTRIM, PA

LOCATION.--Lat 41°38'51", long 77°18'26", Tioga County, Hydrologic Unit 02050205, on left bank 0.6 mi (1.0 km) upstream from Sand Run, along Route 287, and 1.5 mi (2.4 km) northwest of Antrim.

DRAINAGE AREA.--12.6 mi^2 (32.6 km^2).

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--July 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,370 ft (417 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,640 ft^3/s (131 m^3/s) Nov. 26, 1979, gage height, 6.90 ft (2.103 m); minimum daily, 0.12 ft^3/s (0.003 m^3/s) Aug. 29, 30, 1981, minimum gage height, 0.53 ft (0.162 m) July 21, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1000	ice jam		*4.11	1.253
Feb. 20	0830	*462	13.1	3.27	0.997
Feb. 23	Unknown	Unknown		Unknown	

Minimum daily discharge, 0.12 ft^3/s (0.003 m^3/s) Aug. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	1.2	5.1	1.2	.60	19	10	51	2.3	2.1	1.2	.15
2	.50	1.1	19	1.1	15	16	16	51	3.4	2.5	.86	.20
3	.50	.95	20	1.0	50	12	13	28	3.8	3.1	.86	.27
4	.58	.90	9.2	.94	25	8.6	12	22	10	3.2	.95	.20
5	.50	.92	6.4	.88	15	7.4	11	18	3.8	2.7	.78	.34
6	.46	.86	5.3	.84	8.0	7.2	10	16	2.3	2.3	.66	1.1
7	.44	.82	4.9	.80	4.5	7.4	9.4	14	1.8	2.0	.62	2.9
8	.50	.82	6.2	.78	2.5	7.0	8.8	11	1.4	1.7	.62	6.9
9	.58	1.2	8.8	.76	2.3	6.4	9.8	8.6	3.2	1.4	.62	5.3
10	.58	1.9	16	.74	2.2	6.4	11	7.4	2.3	1.2	.54	1.8
11	.82	1.5	7.4	.72	100	6.6	10	14	1.6	1.1	.54	1.2
12	.74	1.4	6.9	.70	80	6.2	9.2	17	1.2	1.0	.54	1.0
13	.68	1.2	5.1	.69	41	5.3	11	12	1.2	1.2	.46	.95
14	.64	1.2	4.4	.66	22	4.7	14	10	1.6	1.4	.62	.95
15	.72	1.0	4.0	.67	20	4.0	18	11	8.8	.95	.54	.86
16	.66	.90	3.6	.66	37	4.5	17	12	3.4	1.0	.47	.95
17	.74	.82	3.3	.64	88	3.9	18	9.8	3.9	.74	.42	.78
18	.82	.78	3.1	.64	97	4.2	16	8.0	2.3	.66	.37	.66
19	.90	.72	3.4	.86	92	3.4	13	7.2	2.0	.54	.31	.60
20	.90	.70	3.0	.90	274	2.5	10	6.6	9.5	.95	.27	.56
21	.82	.74	2.7	.84	100	2.1	8.2	5.9	5.5	2.7	.24	.54
22	.82	.86	2.5	.80	72	2.1	6.9	5.5	5.7	2.5	.20	.52
23	.74	.95	2.3	.89	200	2.1	11	5.1	5.7	1.0	.16	.66
24	.82	3.5	2.1	.84	150	2.1	15	4.9	4.1	.66	.14	.60
25	16	8.8	1.9	.80	59	2.3	11	5.1	4.1	.56	.14	.52
26	12	5.1	1.7	.90	37	2.0	8.6	5.1	3.4	.54	.13	.46
27	3.8	3.1	1.6	1.0	28	2.5	7.6	4.3	3.1	1.0	.13	.46
28	2.5	3.4	1.5	1.0	23	2.3	9.5	3.9	3.1	.74	.13	.54
29	2.0	4.7	1.4	.86	---	2.3	81	3.9	2.8	9.8	.12	.66
30	1.5	3.9	1.6	.74	---	7.2	43	3.8	2.7	2.7	.12	.62
31	1.4	---	1.4	.64	---	11	---	3.1	---	1.6	.13	---
TOTAL	55.08	55.94	165.8	25.51	1645.10	180.7	449.0	385.2	110.0	55.54	13.89	33.25
MEAN	1.78	1.86	5.35	.82	58.8	5.83	15.0	12.4	3.67	1.79	.45	1.11
MAX	16	8.8	20	1.2	274	19	81	51	10	9.8	1.2	6.9
MIN	.42	.70	1.4	.64	.60	2.0	6.9	3.1	1.2	.54	.12	.15
CFSM	.14	.15	.43	.07	4.67	.46	1.19	.98	.29	.14	.04	.09
IN.	.16	.17	.49	.08	4.86	.53	1.33	1.14	.32	.16	.04	.10

CAL YR 1980 TOTAL 3764.15 MEAN 10.3 MAX 259 MIN .17 CFSM .82 IN 11.11
WTR YR 1981 TOTAL 3175.01 MEAN 8.70 MAX 274 MIN .12 CFSM .69 IN 9.37

01548408 WILSON CREEK ABOVE SAND RUN NEAR ANTRIM, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1977 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: July 1978 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily, 1,330 mg/L Nov. 26, 1979, minimum daily, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 5,850 tons (5,310 tonnes) Mar. 5, 1979; minimum daily 0 ton (0 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily, 648 mg/L Feb. 20; minimum daily, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 598 tons (542 tonnes) Feb. 20; minimum daily, 0 ton (0 tonne) on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)
OCT									
08...	1000	.50	197	7.1	8.0	.3	17	74	0
NOV									
07...	1630	.82	220	6.8	8.0	.3	16	73	0
DEC									
11...	1400	9.0	200	8.0	1.0	.1	5.0	57	0
JAN									
21...	1140	.84	215	7.0	.5	.1	4.1	62	0
FEB									
18...	1530	113	135	7.9	1.5	.3	15	3	0
MAR									
18...	0930	4.2	147	7.5	.5	.0	1.6	45	0

DATE	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT									
08...	61	9.4	30	60	40	20	110	60	50
NOV									
07...	60	19	65	<20	--	<20	<10	--	<10
DEC									
11...	47	.9	55	<20	--	<20	100	0	100
JAN									
21...	51	9.9	70	300	200	80	630	570	60
FEB									
18...	2	.1	30	--	--	70	--	--	190
MAR									
18...	37	2.3	20	70	0	70	70	30	40

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT								
08...	10	0	10	30	10	20	3	.00
NOV								
07...	<10	--	<10	10	0	10	8	.02
DEC								
11...	30	0	30	10	0	10	1	.02
JAN								
21...	190	150	40	10	0	10	1	.00
FEB								
18...	380	360	20	60	--	<10	235	72
MAR								
18...	<10	--	<10	10	--	<10	2	.02

01548408 WILSON CREEK ABOVE SAND RUN NEAR ANTRIM, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	.42	1	.00	1.2	2	.00	5.1	5	.07
2	.50	1	.00	1.1	2	.00	19	40	2.1
3	.50	1	.00	.95	1	.00	20	5	.27
4	.58	1	.00	.90	1	.00	9.2	4	.10
5	.50	1	.00	.92	1	.00	6.4	3	.05
6	.46	2	.00	.86	1	.00	5.3	2	.03
7	.44	2	.00	.82	1	.00	4.9	2	.03
8	.50	3	.00	.82	1	.00	6.2	2	.03
9	.58	2	.00	1.2	2	.00	8.8	25	.59
10	.58	2	.00	1.9	2	.01	16	10	.43
11	.82	1	.00	1.5	2	.00	7.4	2	.04
12	.74	1	.00	1.4	1	.00	6.9	2	.04
13	.68	1	.00	1.2	1	.00	5.1	1	.01
14	.64	1	.00	1.2	1	.00	4.4	1	.01
15	.72	1	.00	1.0	1	.00	4.0	5	.05
16	.66	1	.00	.90	1	.00	3.6	3	.03
17	.74	1	.00	.82	2	.00	3.3	2	.02
18	.82	1	.00	.78	2	.00	3.1	2	.02
19	.90	1	.00	.72	1	.00	3.4	1	.00
20	.90	1	.00	.70	1	.00	3.0	1	.00
21	.82	1	.00	.74	1	.00	2.7	1	.00
22	.82	1	.00	.86	1	.00	2.5	5	.03
23	.74	1	.00	.95	1	.00	2.3	5	.03
24	.82	1	.00	3.5	4	.07	2.1	4	.02
25	16	40	3.7	8.8	3	.07	1.9	4	.02
26	12	11	.43	5.1	2	.03	1.7	4	.02
27	3.8	7	.08	3.1	1	.00	1.6	4	.02
28	2.5	6	.05	3.4	3	.03	1.5	4	.02
29	2.0	5	.03	4.7	3	.04	1.4	4	.02
30	1.5	4	.02	3.9	2	.02	1.6	4	.02
31	1.4	3	.01	---	---	---	1.4	3	.01
TOTAL	55.08	---	4.32	55.94	---	0.27	165.8	---	4.13

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	1.2	2	.00	.60	1	.00	19	2	.10
2	1.1	2	.00	15	36	1.5	16	2	.09
3	1.0	2	.00	50	50	6.8	12	2	.06
4	.94	1	.00	25	45	3.0	8.6	3	.07
5	.88	1	.00	15	10	.41	7.4	2	.04
6	.84	1	.00	8.0	3	.06	7.2	1	.02
7	.80	1	.00	4.5	2	.02	7.4	1	.02
8	.78	1	.00	2.5	1	.00	7.0	1	.02
9	.76	1	.00	2.3	1	.00	6.4	1	.02
10	.74	1	.00	2.2	20	.12	6.4	1	.02
11	.72	1	.00	100	311	84	6.6	1	.02
12	.70	1	.00	80	50	11	6.2	1	.02
13	.69	1	.00	41	20	2.2	5.3	1	.01
14	.68	1	.00	22	10	.59	4.7	1	.01
15	.67	1	.00	20	7	.38	4.0	1	.01
16	.66	1	.00	37	10	.97	4.5	1	.01
17	.64	1	.00	88	10	2.4	3.9	1	.01
18	.64	1	.00	97	62	18	4.2	2	.02
19	.86	1	.00	92	77	27	3.4	2	.02
20	.90	1	.00	274	648	598	2.5	2	.01
21	.84	1	.00	100	100	27	2.1	2	.01
22	.80	1	.00	72	20	3.9	2.1	1	.00
23	.89	1	.00	200	100	54	2.1	1	.00
24	.84	1	.00	150	40	16	2.1	1	.00
25	.80	1	.00	59	15	2.4	2.3	1	.00
26	.90	1	.00	37	7	.70	2.0	1	.00
27	1.0	1	.00	28	4	.30	2.5	1	.00
28	1.0	1	.00	23	3	.19	2.3	1	.00
29	.86	1	.00	---	---	---	2.3	1	.00
30	.74	1	.00	---	---	---	7.2	30	.58
31	.64	1	.00	---	---	---	11	10	.30
TOTAL	25.51	---	0.00	1645.10	---	860.94	180.7	---	1.49

01548408 WILSON CREEK ABOVE SAND RUN NEAR ANTRIM, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	10	10	.27	51	43	11	2.3	1	.00
2	16	10	.43	51	25	3.4	3.4	3	.03
3	13	5	.18	28	7	.53	3.8	3	.03
4	12	2	.06	22	5	.30	10	50	2.0
5	11	2	.06	18	5	.24	3.8	5	.05
6	10	1	.03	16	5	.22	2.3	4	.02
7	9.4	1	.03	14	4	.15	1.8	4	.02
8	8.8	1	.02	11	3	.09	1.4	3	.01
9	9.8	5	.13	8.6	3	.07	3.2	3	.03
10	11	10	.30	7.4	3	.06	2.3	3	.02
11	10	7	.19	14	10	.38	1.6	2	.00
12	9.2	5	.12	17	3	.14	1.2	2	.00
13	11	15	.45	12	3	.10	1.2	1	.00
14	14	15	.57	10	2	.05	1.6	2	.00
15	18	20	.97	11	4	.12	8.8	22	.69
16	17	15	.69	12	5	.16	3.4	7	.06
17	18	15	.73	9.8	4	.11	3.9	7	.07
18	16	8	.35	8.0	4	.09	2.3	5	.03
19	13	3	.11	7.2	3	.06	2.0	10	.05
20	10	1	.03	6.6	3	.05	9.5	36	1.2
21	8.2	1	.02	5.9	3	.05	5.5	5	.07
22	6.9	1	.02	5.5	2	.03	5.7	15	.23
23	11	10	.30	5.1	2	.03	5.7	10	.12
24	15	7	.28	4.9	2	.03	4.1	7	.08
25	11	4	.12	5.1	2	.03	4.1	6	.07
26	8.6	3	.07	5.1	2	.03	3.4	5	.05
27	7.6	2	.04	4.3	1	.01	3.1	5	.04
28	9.5	6	.28	3.9	1	.01	3.1	5	.04
29	81	138	38	3.9	1	.01	2.8	5	.04
30	43	10	1.2	3.8	1	.01	2.7	5	.04
31	---	---	---	3.1	1	.00	---	---	---
TOTAL	449.0	---	46.05	385.2	---	17.56	110.0	---	5.09

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	2.1	5	.03	1.2	6	.02	.15	1	.00
2	2.5	5	.03	.86	5	.01	.20	6	.00
3	3.1	5	.04	.86	4	.00	.27	4	.00
4	3.2	5	.04	.95	4	.01	.20	3	.00
5	2.7	5	.04	.78	4	.00	.34	2	.00
6	2.3	5	.03	.66	4	.00	1.1	5	.01
7	2.0	5	.03	.62	4	.00	2.9	12	.21
8	1.7	5	.02	.62	3	.00	6.9	23	.48
9	1.4	5	.02	.62	3	.00	5.3	9	.13
10	1.2	5	.02	.54	3	.00	1.8	5	.02
11	1.1	5	.01	.54	3	.00	1.2	4	.01
12	1.0	5	.01	.54	3	.00	1.0	3	.00
13	1.2	5	.02	.46	3	.00	.95	2	.00
14	1.4	5	.02	.62	5	.00	.95	1	.00
15	.95	5	.01	.54	4	.00	.86	2	.00
16	1.0	5	.01	.47	3	.00	.95	2	.00
17	.74	5	.00	.42	2	.00	.78	2	.00
18	.66	5	.00	.37	1	.00	.66	2	.00
19	.54	5	.00	.31	1	.00	.60	2	.00
20	.95	5	.01	.27	1	.00	.56	2	.00
21	2.7	5	.04	.24	1	.00	.54	2	.00
22	2.5	5	.03	.20	1	.00	.52	2	.00
23	1.0	3	.00	.16	1	.00	.66	4	.00
24	.66	4	.00	.14	1	.00	.60	3	.00
25	.56	5	.00	.14	1	.00	.52	2	.00
26	.54	5	.00	.13	1	.00	.46	2	.00
27	1.0	4	.01	.13	1	.00	.46	2	.00
28	.74	3	.00	.13	1	.00	.54	2	.00
29	9.8	24	.93	.12	1	.00	.66	4	.00
30	2.7	10	.07	.12	1	.00	.62	3	.00
31	1.6	8	.03	.13	1	.00	---	---	---
TOTAL	55.54	---	1.50	13.89	---	0.04	33.25	---	0.86
YEAR	3175.01		942.25						

01548410 BACKSWITCH MINE DISCHARGE AT ANTRIM, PA.

LOCATION.--Lat 41°38'00", long 77°17'41", Tioga County, Hydrologic Unit 02050205, at mine discharge, 0.35 mi (0.56 km) northwest of Antrim.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--April 1978 to March 1981 (discontinued).

WATER-QUALITY DATA, OCTOBER 1980 TO MARCH 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
DEC 11...	1030	.10	1130	3.2	7.5	5.5	270	0	0	0	.0	380
MAR 18...	1015	.16	730	3.2	8.0	3.0	150	0	0	0	.0	200

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 11...	24000	0	24000	6900	140	6800	8400	160	8200	790	20	770
MAR 18...	13000	40	13000	2900	50	2800	3700	0	3700	430	0	430

01548412 MITCHELL MINE DISCHARGE NO. 1 AT ANTRIM, PA

LOCATION.--Lat 41°37'46", long 77°18'13", Tioga County, Hydrologic Unit 02050205, at mine discharge, 0.35 mi (0.56 km) north of Anna S mine entrance and 0.85 mi (1.4 km) west of Antrim.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

REMARKS.--No flow on sampling dates Jan. 21 and Mar. 18, 1981

WATER-QUALITY DATA, OCTOBER 1980 TO MARCH 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG°C)	ACIDITY TOTAL HEATED (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)
OCT 08...	1115	.01	3570	2.4	9.0	34	1700	0	0	0	.0	2100
NOV 07...	1245	.01	3640	2.6	9.0	28	1400	0	0	0	.0	2000
DEC 11...	1230	E.01	3500	2.6	7.0	--	--	0	0	0	.0	3200
FEB 18...	1250	.01	2730	2.6	8.5	20	1000	0	0	0	.0	1200

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 08...	88000	4000	84000	160000	9200	150000	69000	2900	66000	10000	340	10000
NOV 07...	100000	14000	88000	130000	2000	130000	57000	680	56000	8300	500	7800
DEC 11...	110000	0	110000	260000	2600	260000	68000	0	68000	12000	170	11000
FEB 18...	28000	1900	26000	89000	5200	84000	31000	800	30000	4600	0	4600

E = Estimated value.

01548413 MITCHELL MINE DISCHARGE NO. 2 AT ANTRIM, PA

LOCATION.--Lat 41°37'43", long 77°18'12", Tioga County, Hydrologic Unit 02050205, at mine discharge, 0.3 mi (0.5 km) north of Anna S mine entrance, and 0.85 mi (1.4 km) west of Antrim.

DRAINAGE AREA.--not available.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to March 1981. (discontinued)

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 1,650 ft (503 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7.8 ft^3/s (0.22 m^3/s) Mar. 6, 1979, gage height, 6.85 ft (2.089 m); minimum discharge, 0.06 ft^3/s (0.002 m^3/s) Oct. 17-26, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1.0 ft^3/s (0.028 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 21	0515	*3.6	.10	*6.38	1.945	Feb. 24	1930	3.0	.08	6.31	1.923

Minimum discharge, 0.06 ft^3/s (0.002 m^3/s) Oct. 17-26, gage height, 5.44 ft (1.658 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.10	.08	.09	.07	.75						
2	.07	.10	.08	.09	.07	.62						
3	.07	.09	.10	.08	.08	.53						
4	.07	.09	.11	.08	.08	.47						
5	.07	.08	.11	.08	.08	.40						
6	.07	.08	.12	.08	.09	.36						
7	.07	.08	.12	.08	.10	.32						
8	.07	.08	.12	.08	.10	.29						
9	.07	.08	.12	.08	.10	.27						
10	.07	.08	.12	.08	.10	.25						
11	.07	.08	.12	.08	.13	.23						
12	.07	.08	.13	.08	.40	.22						
13	.07	.08	.13	.08	.89	.21						
14	.07	.08	.13	.08	.75	.20						
15	.07	.08	.13	.08	.56	.19						
16	.07	.08	.13	.08	.45	.18						
17	.06	.08	.13	.08	.39	.18						
18	.06	.08	.12	.08	.42	.18						
19	.06	.08	.12	.08	.71	.18						
20	.06	.08	.12	.08	1.9	.17						
21	.06	.08	.11	.08	3.4	.17						
22	.06	.08	.11	.07	2.4	.16						
23	.06	.08	.11	.07	1.6	.16						
24	.06	.08	.11	.07	2.5	.15						
25	.06	.08	.11	.07	2.6	.15						
26	.06	.08	.10	.07	1.7	.14						
27	.12	.08	.10	.07	1.2	.14						
28	.16	.08	.10	.07	.92	.14						
29	.14	.08	.09	.07	---	.14						
30	.12	.08	.09	.07	---	.14						
31	.11	---	.09	.07	---	.13						
TOTAL	2.37	2.46	3.46	2.40	23.79	7.82						
MEAN	.076	.082	.11	.077	.85	.25						
MAX	.16	.10	.13	.09	3.4	.75						
MIN	.06	.08	.08	.07	.07	.13						

CAL YR 1980 TOTAL 92.74 MEAN .25 MAX 2.1 MIN .06

01548413 MITCHELL MINE DISCHARGE NO. 2 AT ANTRIM, PA--Continued

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1978 to September 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,990 micromhos Sept. 17, 1979; minimum daily, 1,800 micromhos Mar. 27, 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 08...	1120	.07	3460	2.5	9.0	35	1800	0	0	0	.0	2200
NOV 07...	1250	.08	4150	2.5	9.0	40	2000	0	0	0	.0	2500
DEC 11...	1225	.13	3000	2.6	7.0	--	--	0	0	0	.0	2600
JAN 21...	1040	.09	3480	2.7	7.5	27	1300	0	0	0	.0	3000
FEB 18...	1300	.44	2930	2.6	8.5	25	1300	0	0	0	.0	1500
MAR 18...	1500	.18	2450	2.7	8.0	18	890	0	0	0	.0	1900

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 08...	120000	1000	120000	210000	9700	200000	73000	3200	70000	11000	0	11000
NOV 07...	140000	5600	130000	230000	26000	200000	80000	1400	78000	13000	--	--
DEC 11...	100000	15000	84000	140000	29000	120000	56000	3900	52000	7500	0	7500
JAN 21...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 18...	32000	1000	30000	110000	2800	110000	39000	100	39000	6400	0	6400
MAR 18...	78000	4400	74000	85000	1100	84000	39000	190	39000	6800	0	6800

01548415 BRIDGE RUN AT MOUTH AT ANTRIM, PA

LOCATION.--Lat 41°37'32", long 77°17'43", Tioga County, Hydrologic Unit 02050205, at bridge on State Route 287, 0.6 mi (1.0 km) south of Antrim and 2.2 mi (3.5 km) north of Morris.

DRAINAGE AREA.--1.41 mi² (3.65 km²).

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)
OCT									
09...	1200	.96	960	3.2	9.5	3.1	150	0	0
NOV									
07...	1600	1.2	940	3.0	9.0	2.9	150	0	0
DEC									
11...	1500	1.9	730	3.2	3.0	1.1	54	0	0
JAN									
21...	1215	1.0	970	3.0	3.0	2.8	140	0	0
FEB									
18...	1630	10	340	3.8	3.5	.9	45	0	0
MAR									
18...	1015	2.7	705	3.1	4.0	2.7	140	0	0

DATE	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
OCT									
09...	0	.0	320	8800	260	8500	5000	0	5000
NOV									
07...	0	.0	320	8800	480	8300	5500	100	5400
DEC									
11...	0	.0	390	5800	20	5800	4400	110	4300
JAN									
21...	0	.0	300	10000	560	9600	6700	70	6600
FEB									
18...	0	.0	70	3600	1700	1900	3600	2500	1100
MAR									
18...	0	.0	220	7000	100	6900	4500	30	4500

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT								
09...	4700	0	4700	260	0	260	1	.00
NOV								
07...	4300	10	4300	250	0	250	5	.02
DEC								
11...	3300	10	3300	210	0	210	5	.03
JAN								
21...	4800	30	4800	280	10	270	--	--
FEB								
18...	1200	50	1200	110	20	90	109	2.9
MAR								
18...	3200	40	3200	220	0	220	1	.01

01548416 ANNA S MINE DISCHARGE NO. 1 NEAR ANTRIM, PA

LOCATION.--Lat 41°37'26", long 77°18'07", Tioga County, Hydrologic Unit 02050205, at main entrance to Anna S mines, 0.9 mi (1.4 km) southwest of Antrim.

DRAINAGE AREA.--not available.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to March 1981. (discontinued)

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 1,670 ft (509 m), from topographic map.

REMARKS.--Water-Discharge records good. New V-notch sharp-crested weir installed on July 10, 1980.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5.1 ft^3/s (0.14 m^3/s) Mar. 7, 1979, gage height, 7.41 ft (2.259 m); minimum discharge, 0.24 ft^3/s (0.007 m^3/s) Nov. 14 - 21, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.9 ft^3/s (0.08 m^3/s) Feb. 25, gage height 2.13 ft (0.649 m); minimum, 0.27 ft^3/s (0.008 m^3/s) Oct. 12-25, Jan. 31 to Feb. 3, gage height 1.34 ft (0.408 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.36	.31	.37	.27	1.9						
2	.29	.37	.31	.36	.27	1.7						
3	.29	.37	.32	.36	.28	1.5						
4	.29	.37	.33	.35	.28	1.3						
5	.29	.36	.33	.35	.28	1.2						
6	.29	.36	.35	.34	.28	1.1						
7	.29	.36	.36	.34	.28	1.0						
8	.29	.35	.36	.34	.28	.93						
9	.29	.34	.37	.33	.28	.86						
10	.29	.34	.38	.33	.29	.81						
11	.29	.34	.39	.32	.30	.77						
12	.28	.33	.39	.32	.39	.73						
13	.27	.33	.39	.32	.58	.71						
14	.27	.33	.41	.31	.71	.69						
15	.28	.33	.41	.31	.75	.66						
16	.27	.33	.42	.31	.76	.64						
17	.27	.32	.42	.31	.77	.62						
18	.27	.32	.42	.30	.82	.60						
19	.27	.32	.42	.30	.97	.60						
20	.28	.32	.42	.30	1.4	.58						
21	.28	.31	.41	.30	2.2	.58						
22	.28	.31	.41	.30	2.5	.58						
23	.27	.31	.41	.29	2.4	.56						
24	.27	.31	.41	.29	2.7	.56						
25	.28	.31	.40	.29	2.9	.54						
26	.29	.31	.40	.29	2.8	.53						
27	.31	.31	.40	.28	2.4	.52						
28	.34	.31	.39	.28	2.1	.51						
29	.36	.31	.39	.28	---	.50						
30	.36	.31	.38	.28	---	.49						
31	.37	---	.37	.27	---	.49						
TOTAL	9.06	9.95	11.88	9.72	30.24	24.76						
MEAN	.29	.33	.38	.31	1.08	.80						
MAX	.37	.37	.42	.37	2.9	1.9						
MIN	.27	.31	.31	.27	.27	.49						

CAL YR 1980 TOTAL 259.49 MEAN .71 MAX 2.9 MIN .27

01548416 ANNA S MINE DISCHARGE NO. 1 NEAR ANTRIM, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 08...	1215	.29	1360	2.8	9.0	8.4	420	0	0	0	.0	480
NOV 07...	1200	.36	1590	2.8	9.0	7.7	380	0	0	0	.0	630
DEC 11...	1145	.40	1410	2.8	7.0	8.2	410	0	0	0	.0	750
JAN 21...	1000	.30	1480	2.8	7.0	7.1	360	0	0	0	.0	540
FEB 18...	1215	.83	1820	2.8	8.0	11	550	0	0	0	.0	790
MAR 18...	1400	.62	1800	2.8	8.0	8.0	400	0	0	0	.0	750

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 08...	26000	1300	24000	21000	540	20000	6600	130	6500	1500	30	1500
NOV 07...	27000	1400	25000	35000	10000	25000	10000	920	9200	2300	220	2100
DEC 11...	29000	680	28000	31000	810	30000	8400	0	8400	1900	30	1900
JAN 21...	35000	2900	32000	28000	2200	26000	8100	10	8100	1700	0	1700
FEB 18...	14000	100	14000	42000	2000	40000	15000	0	15000	2800	100	2700
MAR 18...	33000	1800	31000	34000	0	34000	--	--	8800	2400	20	2400

01548418 HUNTER DRIFT DISCHARGE NEAR ANTRIM, PA

LOCATION.--Lat 41°37'05", long 77°18'40", Tioga County, Hydrologic Unit 02050205, at mine entrance, 250 ft (76 m) upstream of Anna S mine road, and 1.6 mi (2.6 km) southwest of Antrim.

DRAINAGE AREA.--not available.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to March 1981. (discontinued)

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitutde of gage is 1,670 ft (509 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14 ft^{3}/s (0.40 m^{3}/s) Mar. 6, 1979, gage height, 7.97 ft (2.429 m); minimum discharge, 0.18 ft^{3}/s (0.005 m^{3}/s) Jan. 21 to Feb. 3, 1981, gage height, 6.36 ft (1.938 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3.0 ft^{3}/s (0.085 m^{3}/s) and maximum (*):

Date	Time	Discharge (ft^{3}/s)	Discharge (m^{3}/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^{3}/s)	Discharge (m^{3}/s)	Gage height (ft)	Gage height (m)
Feb. 21	0815	6.1	.17	7.45	2.271	Feb. 24	1545	*6.3	.18	*7.47	2.277

Minimum discharge, 0.18 ft^{3}/s (0.005 m^{3}/s) Jan. 21 to Feb. 3, gage height, 6.36 ft (1.938 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.36	.32	.30	.18	2.3						
2	.24	.34	.36	.29	.18	2.0						
3	.24	.33	.46	.29	.24	1.8						
4	.24	.32	.46	.28	.24	1.5						
5	.24	.30	.48	.26	.22	1.4						
6	.22	.30	.49	.26	.22	1.2						
7	.22	.29	.47	.25	.22	1.1						
8	.22	.29	.46	.24	.21	1.0						
9	.22	.28	.45	.23	.21	.92						
10	.21	.27	.47	.25	.21	.85						
11	.21	.27	.46	.26	.78	.80						
12	.21	.28	.45	.26	2.1	.76						
13	.21	.27	.45	.25	1.8	.71						
14	.21	.27	.44	.24	1.4	.68						
15	.21	.27	.43	.24	1.2	.64						
16	.21	.26	.43	.23	1.1	.61						
17	.21	.26	.42	.22	1.2	.60						
18	.21	.26	.41	.21	1.6	.57						
19	.20	.26	.39	.20	2.0	.56						
20	.19	.26	.39	.19	3.6	.53						
21	.19	.26	.37	.18	5.9	.51						
22	.19	.24	.36	.18	4.9	.49						
23	.19	.24	.35	.18	4.3	.47						
24	.19	.24	.35	.18	5.9	.46						
25	.38	.31	.33	.18	5.6	.45						
26	.71	.34	.33	.18	4.4	.44						
27	.60	.30	.33	.18	3.3	.43						
28	.58	.30	.32	.18	2.8	.42						
29	.49	.30	.32	.18	---	.41						
30	.44	.32	.30	.18	---	.41						
31	.39	---	.30	.18	---	.41						
TOTAL	8.71	8.59	12.35	6.93	56.01	25.43						
MEAN	.28	.29	.40	.22	2.00	.82						
MAX	.71	.36	.49	.30	5.9	2.3						
MIN	.19	.24	.30	.18	.18	.41						

CAL YR 1980 TOTAL 265.88 MEAN .73 MAX 8.8 MIN .19

01548418 HUNTER DRIFT DISCHARGE NEAR ANTRIM, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT												
08...	1300	.24	3150	2.6	9.5	42	2100	0	0	0	.0	2300
NOV												
07...	1115	.28	3030	2.7	9.5	32	1600	0	0	0	.0	2900
DEC												
11...	1000	.46	2420	2.8	8.5	25	1300	0	0	0	.0	2300
JAN												
21...	0915	.18	2930	2.8	7.0	24	1200	0	0	0	.0	2300
FEB												
18...	1100	1.7	2340	2.6	9.0	19	930	0	0	0	.0	930
MAR												
18...	1230	.54	2090	2.7	8.5	16	800	0	0	0	.0	1600

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT												
08...	120000	0	120000	330000	0	330000	45000	0	45000	11000	0	11000
NOV												
07...	120000	19000	110000	260000	0	260000	34000	0	34000	8200	0	8200
DEC												
11...	83000	3400	79000	170000	0	170000	24000	1900	22000	6200	50	6200
JAN												
21...	100000	0	100000	260000	0	260000	36000	0	36000	7600	130	7500
FEB												
18...	23000	800	22000	110000	0	110000	14000	0	14000	3300	0	3300
MAR												
18...	74000	3600	70000	100000	4000	96000	20000	0	20000	4200	0	4200

01548419 ANNA S MINE DISCHARGE NO. 2 NEAR ANTRIM, PA

LOCATION.--Lat 41°37'13", long 77°18'21", Tioga County, Hydrologic Unit 02050205, at mine discharge, 0.1 mi (0.2 km) east of Anna S Road, 0.4 mi (0.6 km) northeast of Hunter Drift mine entrance, and 1.2 mi (1.9 km) southwest of Antrim.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
DEC 11...	1115	.05	343	3.6	4.0	1.1	56	0	0	0	.0	--
MAR 18...	1320	.05	850	3.2	5.0	3.1	160	0	0	0	.0	280

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	13000	0	13000	2400	170	2200	3400	0	3400	910	10	900

01548421 BASSWOOD RUN AT MOUTH NEAR ANTRIM, PA

LOCATION.--Lat 41°36'50", long 77°17'38", Tioga County, Hydrologic Unit 02050205, 20 ft (6.0 m) east of State Route 287, 1.2 mi (1.9 km) south of Antrim, and 1.4 mi (2.2 km) north of Morris.

DRAINAGE AREA.--1.22 mi² (3.16 km²).

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

WATER-QUALITY DATA, OCTOBER 1980 TO MARCH 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)
DEC									
11...	1410	1.2	1670	2.8	1.0	13	650	0	0
MAR									
18...	1045	1.7	1620	2.8	.5	17	830	0	0

DATE	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
DEC									
11...	0	.0	930	46000	8600	37000	110000	38000	69000
MAR									
18...	0	.0	810	44000	0	44000	57000	4800	52000

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
DEC								
11...	20000	0	20000	3300	0	3300	10	.03
MAR								
18...	16000	100	16000	2800	0	2800	24	.11

01548423 WILSON CREEK AT MORRIS, PA

LOCATION.--Lat 41°35'51", long 77°17'50", Tioga County, Hydrologic Unit 02050205, at bridge on State Route 287, 0.3 mi (0.5 km) north of Morris, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--22.8 mi² (59.1 km²).

PERIOD OF RECORD.--November 1977 to August 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT										
09...	1000	1.6	975	3.3	10.5	5.0	250	0	0	0
NOV										
07...	1530	2.9	950	3.1	9.5	3.8	190	0	0	0
DEC										
11...	1345	15	395	3.8	1.5	1.2	59	0	0	0
JAN										
21...	1250	3.2	760	3.3	.5	2.9	140	0	0	0
FEB										
18...	1715	186	182	6.2	2.0	.5	24	4	0	3
MAR										
18...	1130	15	500	3.5	.5	2.8	140	0	0	0
24...	1615	10	480	3.4	6.0	3.5	174	--	--	--
AUG										
11...	1150	3.4	910	3.3	23.0	4.5	223	--	--	--

DATE	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT										
09...	.0	380	--	--	--	22000	0	22000	4800	540
NOV										
07...	.0	370	--	--	--	18000	800	17000	11000	1100
DEC										
11...	.0	130	--	--	--	6500	1100	5400	4200	1600
JAN										
21...	.0	420	--	--	--	17000	0	17000	6700	100
FEB										
18...	4.0	45	--	--	--	2100	900	1200	2000	1800
MAR										
18...	.0	180	--	--	--	--	--	8000	4100	940
24...	--	170	313	.43	8.4	--	--	--	4200	100
AUG										
11...	--	380	589	.80	5.4	--	--	--	4600	0

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT									
09...	4200	8800	80	8700	1300	50	1300	22	.10
NOV									
07...	10000	8300	570	7800	1300	70	1200	12	.09
DEC									
11...	2600	2800	80	2700	390	10	380	7	.28
JAN									
21...	6600	6100	50	6000	830	20	810	5	.04
FEB									
18...	160	1000	90	960	140	20	120	--	--
MAR									
18...	3200	3200	40	3100	480	0	480	29	1.2
24...	4100	3700	0	3800	--	--	--	4	.11
AUG									
11...	4900	8300	200	8100	--	--	--	3	.03

01548425 UNNAMED TRIBUTARY TO PAINT RUN NEAR MORRIS, PA

LOCATION.--Lat 41°36'23", long 77°19'29", Tioga County, Hydrologic Unit 02050205, 0.4 mi (0.6 km) west of Plantation Road, 0.8 mi (1.3 km) south of Rattler mine road, and 1.9 mi (3.1 km) northwest of Morris.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)
DEC												
11...	1510	E.06	840	3.2	7.0	6.1	300	0	0	0	.0	450
MAR												
18...	1140	.04	520	3.7	9.0	3.3	160	0	0	0	.0	220

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
DEC												
11...	31000	2200	29000	7200	0	7200	6600	110	6400	700	10	690
MAR												
18...	24000	0	24000	2900	20	2900	4400	140	4200	440	0	440

E = Estimated value.

01548427 STONY FORK NEAR MOUTH NEAR BLACKWELL, PA

LOCATION.--Lat 41°34'56", long 77°20'46", Tioga County, Hydrologic Unit 02050205, 0.85 mi (1.4 km) upstream from mouth, and 2.3 mi (3.7 km) northeast of Blackwell.

DRAINAGE AREA.--37.1 mi² (96.1 km²).

PERIOD OF RECORD.--November 1977 to August 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
DEC										
11...	1230	19	165	6.6	.5	.2	10	31	0	25
MAR										
18...	1315	22	125	7.6	.0	.1	3.0	15	0	12
24...	1430	11	125	7.6	4.5	.2	10	--	--	12
AUG										
11...	1400	1.9	188	7.3	26.0	--	--	--	--	38

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
DEC										
11...	12	35	--	--	--	160	--	<20	60	50
MAR										
18...	.6	25	--	--	--	1300	1200	140	290	250
24...	--	40	86	.12	2.5	--	--	--	300	250
AUG										
11...	--	38	110	.15	.57	--	--	--	140	130

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
DEC									
11...	10	280	20	260	20	0	20	2	.10
MAR									
18...	40	330	10	320	60	10	50	5	.30
24...	50	440	20	420	--	--	--	3	.09
AUG									
11...	10	40	20	20	--	--	--	1	.01

01548430 BABB CREEK AT BLACKWELL, PA

LOCATION.--Lat 41°33'21", long 77°22'42", Tioga County, Hydrologic Unit 02050205, at bridge on State Route 414 at Blackwell, and 0.4 mi (0.6 km) upstream from mouth.

DRAINAGE AREA.--129 mi^2 (334 km^2).

PERIOD OF RECORD.--November 1977 to March 1981 (discontinued).

WATER-QUALITY DATA, OCTOBER 1980 to MARCH 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)
OCT									
08...	1715	8.7	335	4.4	15.0	.5	25	0	0
NOV									
07...	1400	16	303	4.5	8.5	.5	25	0	0
DEC									
11...	1130	90	177	6.6	.5	.2	10	9	0
JAN									
21...	1515	26	230	4.8	.5	.4	20	2	0
FEB									
19...	1120	E700	96	7.6	2.0	.2	10	8	0
MAR									
18...	1245	48	145	5.3	1.0	.4	20	2	0

DATE	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
OCT									
08...	0	.0	130	3200	0	3200	1800	1100	680
NOV									
07...	0	.0	120	3200	220	3000	150	0	150
DEC									
11...	8	3.6	65	1000	--	--	440	400	40
JAN									
21...	2	51	75	3000	600	2400	240	40	200
FEB									
19...	6	.3	27	790	620	170	880	730	150
MAR									
18...	2	16	35	1700	300	1400	340	240	100

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT								
08...	1900	160	1700	360	50	310	1	.02
NOV								
07...	1500	0	1500	240	0	240	4	.17
DEC								
11...	770	100	670	100	0	100	6	1.5
JAN								
21...	1300	90	1200	190	0	190	3	.21
FEB								
19...	370	40	330	60	10	50	21	--
MAR								
18...	630	10	620	90	0	90	2	.26

01548500 PINE CREEK AT CEDAR RUN, PA

LOCATION.--Lat 41°31'18", long 77°26'52", Lycoming County, Hydrologic Unit 02050205, on left bank at upstream side of highway bridge at village of Cedar Run, 2,000 ft (610 m) downstream from Cedar Run and 1.2 mi (1.9 km) upstream from Gamble Run.

DRAINAGE AREA.--604 mi^2 (1,564 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1918 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 780.36 ft (237.854 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 13, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--63 years, 834 ft^3/s (23.62 m^3/s), 18.74 in/yr (476 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,000 ft^3/s (1,870 m^3/s) June 23, 1972, gage height, 16.0 ft (4.88 m), from floodmark, from rating curve extended above 16,000 ft^3/s (450 m^3/s) on basis of slope-area measurement at gage height, 14.39 ft (4.386 m); minimum, 8.0 ft^3/s (0.23 m^3/s) Sept. 1, 2, 3, 1939; minimum gage height, 0.80 ft (0.244 m) Nov. 28, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,900 ft^3/s (167 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1630	ice jam		*9.95	3.033	Feb. 24	0100	12,700	360	7.70	2.347
Feb. 20	1930	*15,200	430	8.33	2.539						

Minimum discharge, 54 ft^3/s (1.53 m^3/s) Oct. 24, 25; minimum gage height 1.59.ft (0.485 m) Aug. 28, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	130	243	310	110	1850	680	3800	315	307	148	82
2	58	126	291	280	200	1500	974	3220	365	330	128	99
3	61	115	1090	260	430	1260	974	2310	458	560	117	214
4	69	105	866	240	320	1050	960	1850	1890	441	124	198
5	76	103	750	220	270	950	945	1530	1540	417	146	224
6	74	103	660	200	230	860	910	1320	1180	425	113	263
7	71	99	550	190	210	780	812	1150	919	349	103	259
8	67	105	512	180	190	700	756	964	721	293	256	485
9	63	117	519	170	175	640	715	839	875	254	310	712
10	61	144	597	150	165	580	698	750	744	229	187	457
11	67	150	547	140	2000	554	633	819	608	205	154	381
12	72	130	486	130	3500	520	640	1830	525	182	193	332
13	79	122	475	128	2450	507	955	2000	462	171	164	283
14	74	114	440	132	1800	488	1120	1900	502	188	135	250
15	72	114	430	138	1500	425	1620	3150	953	166	142	249
16	72	110	480	146	1300	433	1630	3480	771	140	199	206
17	72	99	450	154	1600	379	1580	2640	1090	133	192	183
18	72	83	420	162	2500	352	1470	2010	921	124	145	165
19	75	118	580	152	4050	330	1220	1590	811	117	128	149
20	75	124	520	140	11700	320	1060	1290	901	141	115	139
21	107	93	480	130	11900	370	931	1060	987	326	106	133
22	61	109	450	127	7140	340	834	896	1000	282	97	132
23	58	103	420	128	6990	306	875	762	902	189	90	144
24	58	110	400	129	10400	296	1150	660	723	144	84	131
25	176	254	380	130	6300	293	1060	587	638	128	79	113
26	1070	327	360	133	4010	280	994	582	580	126	77	102
27	405	258	340	146	2830	300	953	514	490	155	72	98
28	272	242	330	160	2250	332	946	458	410	144	70	98
29	213	269	360	150	---	301	3360	441	354	386	69	92
30	177	263	370	130	---	355	4940	425	321	295	71	88
31	139	---	340	120	---	652	---	376	---	190	75	---
TOTAL	4124	4339	15136	5105	86520	18303	36395	45203	22956	7537	4089	6461
MEAN	133	145	488	165	3090	590	1213	1458	765	243	132	215
MAX	1070	327	1090	310	11900	1850	4940	3800	1890	560	310	712
MIN	58	83	243	120	110	280	633	376	315	117	69	82
CFSM	.22	.24	.81	.27	5.12	.98	2.01	2.41	1.27	.40	.22	.36
IN.	.25	.27	.93	.31	5.33	1.13	2.24	2.78	1.41	.46	.25	.40

CAL YR 1980 TOTAL 241047 MEAN 659 MAX 7940 MIN 47 CFSM 1.09 IN 14.85
WTR YR 1981 TOTAL 256168 MEAN 702 MAX 11900 MIN 58 CFSM 1.16 IN 15.78

01548500 PINE CREEK AT CEDAR RUN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to September 1981 (discontinued).

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
22...	1630	50	143	7.0	9.0	--	--	32	27	92
NOV										
26...	1200	379	150	6.8	1.5	--	--	25	26	84
DEC										
30...	0945	E370	105	7.8	.0	.3	15	22	22	50
JAN										
26...	0950	E133	84	7.0	.0	--	--	24	27	70
FEB										
25...	1330	5970	70	7.2	4.0	--	--	10	13	42
MAR										
24...	1300	293	95	6.3	3.0	.3	15	14	23	62
APR										
22...	1000	822	82	6.9	8.0	--	--	--	17	47
MAY										
19...	1825	1540	68	7.6	13.0	--	--	13	14	47
JUN										
17...	1330	1290	85	6.9	21.0	--	--	18	13	57
JUL										
16...	1715	126	125	7.6	24.5	--	--	21	22	68
AUG										
11...	1500	142	110	7.4	27.0	--	--	31	17	67
SEP										
15...	0920	254	115	7.2	19.5	--	--	27	21	142

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT										
22...	.13	12.4	280	270	10	80	20	60	1	.13
NOV										
26...	.11	86.0	340	330	10	200	0	220	6	6.1
DEC										
30...	.07	--	150	120	30	130	0	130	7	--
JAN										
26...	.10	--	120	110	10	160	0	160	1	--
FEB										
25...	.06	677	560	530	30	110	50	60	24	387
MAR										
24...	.08	49.0	150	150	0	160	0	160	2	1.6
APR										
22...	.06	104	120	110	10	80	0	80	2	4.4
MAY										
19...	.06	195	160	120	40	50	10	40	3	12
JUN										
17...	.08	199	750	690	60	140	70	70	27	94
JUL										
16...	.09	23.1	140	110	30	90	60	30	2	.68
AUG										
11...	.09	25.7	200	170	30	70	20	50	2	.77
SEP										
15...	.19	97.4	300	270	30	130	50	80	2	1.4

01549500 BLOCKHOUSE CREEK NEAR ENGLISH CENTER, PA

LOCATION.--Lat 41°28'25", long 77°13'52", Lycoming County, Hydrologic Unit 02050205, on right bank just downstream from bridge on State Highway 284, 0.7 mi (1.1 km) upstream from Blacks Creek, 1.7 mi (2.7 km) upstream from confluence with Texas Creek, and 5 mi (8 km) northeast of English Center.

DRAINAGE AREA.--37.7 mi^2 (97.6 km^2).

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 951: 1941. WSP 1031: 1942-44(M). WSP 1502: 1942. WDR PA-75-2: 1973(P), 1974(P).

GAGE.--Water-stage recorder. Datum of gage is 1,041.85 ft (317.556 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 58.2 ft^3/s (1.648 m^3/s), 20.91 in/yr (531 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft^3/s (177 m^3/s) June 23, 1972, gage height, 9.34 ft (2.847 m), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of contracted-opening measurement at gage height, 8.81 ft (2.685 m); no flow Aug. 6, 7, 31, Sept. 2, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 9.0 ft (2.74 m), from floodmark, discharge, 5,780 ft^3/s (164 m^3/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft^3/s (31.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1845	ice jam		5.02	1.530	Feb. 23	2100	*1,940	54.9	*5.32	1.622
Feb. 20	1200	1,840	52.1	5.21	1.588						

Minimum discharge, 1.4 ft^3/s (0.040 m^3/s), Oct. 1, 2, gage height, 0.99 ft (0.302 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	3.6	18	9.4	4.3	105	49	170	19	25	16	3.6
2	1.4	3.2	23	8.8	40	88	64	150	35	41	13	6.5
3	1.7	2.9	57	8.4	80	75	57	130	42	41	12	7.9
4	3.5	2.9	32	8.0	70	64	56	105	70	32	12	11
5	4.0	3.0	26	7.6	60	60	63	86	42	30	13	9.3
6	2.9	2.8	23	7.2	45	52	57	72	36	34	11	9.4
7	2.5	2.6	22	6.6	30	44	51	62	31	25	11	8.8
8	2.3	14	23	6.2	21	40	46	52	27	21	11	14
9	2.1	15	25	5.8	19	37	50	46	41	20	10	16
10	1.8	17	36	5.4	17	36	48	41	30	18	8.5	9.7
11	2.5	11	27	5.0	900	35	46	126	25	16	8.1	7.3
12	3.0	8.4	22	4.8	350	32	50	153	22	14	9.0	6.3
13	2.9	6.8	20	4.6	165	30	64	130	21	17	7.8	5.5
14	2.4	5.8	18	4.8	115	27	84	111	23	20	7.3	4.8
15	2.6	5.2	16	5.2	92	26	88	98	79	14	7.1	5.3
16	2.6	4.5	15	5.8	78	25	84	99	44	12	7.3	4.7
17	2.4	3.9	14	6.4	100	24	84	75	34	11	6.4	4.3
18	2.3	5.2	14	6.2	150	23	78	65	28	10	5.3	4.0
19	2.5	4.8	16	5.6	280	22	67	57	41	10	4.7	4.0
20	2.6	4.7	14	5.2	1220	22	59	50	138	19	4.2	3.9
21	2.7	4.9	11	5.0	619	25	49	44	93	30	3.8	3.6
22	2.6	5.2	10	4.8	367	27	42	39	153	23	3.6	4.4
23	2.5	5.1	10	4.7	933	27	54	34	103	16	3.1	5.9
24	2.5	17	9.8	4.7	843	27	60	31	79	13	3.2	4.5
25	46	46	9.4	5.0	375	26	55	28	71	12	3.2	3.8
26	49	28	9.2	6.0	237	26	45	28	61	12	3.1	3.5
27	14	19	9.0	9.0	164	27	41	27	46	13	2.9	3.2
28	9.2	20	8.8	8.6	130	27	45	24	38	12	2.9	3.0
29	6.9	26	10	7.0	---	26	180	25	31	50	3.2	2.9
30	5.1	20	11	5.2	---	43	198	24	27	23	2.9	2.8
31	4.1	---	10	4.5	---	44	---	22	---	18	3.4	---
TOTAL	194.0	318.5	569.2	191.5	7504.3	1192	2014	2204	1530	652	220.0	183.9
MEAN	6.26	10.6	18.4	6.18	268	38.5	67.1	71.1	51.0	21.0	7.10	6.13
MAX	49	46	57	9.4	1220	105	198	170	153	50	16	16
MIN	1.4	2.6	8.8	4.5	4.3	22	41	22	19	10	2.9	2.8
CFSM	.17	.28	.49	.16	7.11	1.02	1.78	1.89	1.35	.56	.19	.16
IN.	.19	.31	.56	.19	7.40	1.18	1.99	2.17	1.51	.64	.22	.18

CAL YR 1980 TOTAL 15865.5 MEAN 43.3 MAX 912 MIN 1.1 CFSM 1.15 IN 15.65
WTR YR 1981 TOTAL 16773.4 MEAN 46.0 MAX 1220 MIN 1.4 CFSM 1.22 IN 16.55

01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA

LOCATION.--Lat 41°16'25", long 77°19'28", Lycoming County, Hydrologic Unit 02050205, on downstream side of bridge pier, 0.9 mi (1.4 km) downstream from Ramsey Run, 4 mi (6 km) downstream from Little Pine Creek, 4 mi (6 km) south of Waterville, and 9.2 mi (14.8 km) upstream from mouth.

DRAINAGE AREA.--944 mi^2 (2,445 km^2).

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR PA-72-1: 1964(P).

GAGE.--Nonrecording gage. Datum of gage is 570.62 ft (173.925 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flood flows subject to regulation by Little Pine Creek Reservoir 8.5 mi (13.7 km) upstream, capacity, 24,900 acre-ft (30.7 hm^3).

AVERAGE DISCHARGE.--24 years, 1,420 ft^3/s (40.21 m^3/s), 20.37 in/yr (517 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104,000 ft^3/s (2,950 m^3/s) June 23, 1972, gage height, 22.76 ft (6.937 m), from floodmarks, from rating curve extended above 22,000 ft^3/s (623 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 25 ft^3/s (0.71 m^3/s) Sept. 25, 26, 27, 1964; minimum gage height observed, 0.97 ft (0.296 m) Sept. 13, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,200 ft^3/s (261 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)	Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Feb. 11	unknown	ice jam		*10.48	3.194	Feb. 24	0900	17,000	481	8.30	2.530
Feb. 21	0100	*23,200	657	9.60	2.926						

Minimum daily discharge, 70 ft^3/s (1.98 m^3/s) Oct. 1, 2, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	200	380	440	130	3100	1720	7110	480	718	225	134
2	70	172	450	400	250	2510	1590	5200	580	899	200	200
3	74	172	1550	360	660	2070	1520	3810	750	1100	180	330
4	80	163	1310	330	570	1720	1490	3180	1050	1050	200	300
5	85	163	1110	290	480	1590	1520	2560	2010	761	230	360
6	84	163	960	260	440	1420	1400	2120	1560	640	180	410
7	80	150	820	230	400	1230	1320	1900	1220	520	160	400
8	76	150	750	210	375	1130	1230	1700	1160	440	400	800
9	74	242	783	190	355	1010	1130	1500	1130	380	490	1130
10	70	264	935	170	340	930	1130	1270	985	320	280	700
11	76	215	887	150	1500	860	1160	1480	828	290	235	580
12	82	181	800	140	5400	810	1080	2500	718	270	315	466
13	88	172	740	130	3800	761	1240	3320	687	250	250	353
14	84	163	700	135	2800	708	1970	2910	985	270	210	307
15	80	160	680	140	2400	645	2680	2740	1400	230	230	294
16	80	150	760	146	2300	670	2910	5600	1310	200	310	270
17	80	138	700	150	2800	580	2540	3840	1260	210	290	220
18	81	120	660	165	4300	540	2300	3280	1230	190	230	210
19	82	140	900	160	6400	500	2000	2600	1260	270	190	200
20	83	180	820	150	19000	480	1700	2000	1340	598	167	192
21	130	150	740	140	20600	520	1500	1600	1490	442	150	190
22	90	170	680	139	12600	480	1400	1340	1650	276	140	189
23	80	140	630	138	11000	435	1310	1200	1550	253	130	225
24	74	165	590	137	15800	410	1260	1010	1260	276	122	200
25	138	410	540	138	11800	400	1260	935	1120	242	118	180
26	1730	490	500	140	8030	395	1520	820	911	200	110	160
27	1390	390	480	150	5610	420	1430	750	852	250	107	152
28	875	365	460	160	4000	470	1400	687	677	225	105	150
29	517	400	500	150	---	440	5080	687	598	210	102	142
30	294	395	540	142	---	520	7900	667	525	264	107	136
31	230	---	480	137	---	1450	---	637	---	320	116	---
TOTAL	7127	6533	22835	5917	144140	29204	57690	70953	32576	12564	6279	9580
MEAN	230	218	737	191	5148	942	1923	2289	1086	405	203	319
MAX	1730	490	1550	440	20600	3100	7900	7110	2010	1100	490	1130
MIN	70	120	380	130	130	395	1080	637	480	190	102	134
CFSM	.24	.23	.78	.20	5.45	1.00	2.04	2.43	1.15	.43	.22	.34
IN.	.28	.26	.90	.23	5.68	1.15	2.27	2.80	1.28	.50	.25	.38

CAL YR 1980 TOTAL 402157 MEAN 1099 MAX 15000 MIN 69 CFSM 1.16 IN 15.85
WTR YR 1981 TOTAL 405398 MEAN 1111 MAX 20600 MIN 70 CFSM 1.18 IN 15.98

01550000 LYCOMING CREEK NEAR TROUT RUN, PA

LOCATION.--Lat 41°25'06", long 77°01'59", Lycoming County, Hydrologic Unit 02050206, on right bank 150 ft (46 m) upstream from highway bridge, 300 ft (91 m) upstream from Penn Central Railroad bridge, 0.5 mi (0.8 km) downstream from Grays Run, and 2.6 mi (4.2 km) northeast of village of Trout Run.

DRAINAGE AREA.--173 mi^2 (448 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 921: 1933, 1934(M), 1935-39. WSP 1302: 1914-16, 1922(M), 1923-25, 1926(M), 1927-28, 1930, 1931(M). WSP 1502: 1920-21(M), 1932(M), 1933.

GAGE.--Water-stage recorder. Datum of gage is 693.95 ft (211.516 m) National Geodetic Vertical Datum of 1929. Prior to June 1, 1939, nonrecording gage at site 150 ft (46 m) downstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--67 years, 284 ft^3/s (8.043 m^3/s), 22.27 in/yr (566 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,900 ft^3/s (733 m^3/s) June 22, 1972, gage height, 20.19 ft (6.154 m), from floodmark in gage shelter, from rating curve extended above 5,300 ft^3/s (150 m^3/s) on basis of slope-area measurement of peak flow; minimum, 3.2 ft^3/s (0.091 m^3/s) Sept. 27, 1936; minimum daily, 4.0 ft^3/s (0.11 m^3/s) Sept. 19-24, 27, 28, 1936, Sept. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft^3/s (82.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	2030	ice jam		9.65	2.941	Feb. 23	2130	*10,000	283	*11.77	3.587
Feb. 20	1415	7,730	219	10.65	3.246						

Minimum daily discharge, 6.0 ft^3/s (0.17 m^3/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	24	97	72	35	534	194	673	104	194	84	28
2	6.0	21	106	64	150	437	294	631	154	268	75	60
3	8.0	18	358	56	120	363	252	480	214	332	72	54
4	21	18	237	52	96	300	237	408	364	260	80	80
5	18	17	192	49	84	286	261	359	221	220	74	100
6	13	15	173	46	74	256	270	330	173	260	68	90
7	11	15	169	52	64	226	234	297	149	205	62	130
8	10	34	174	48	58	208	217	261	130	165	77	180
9	9.1	68	191	46	54	195	218	234	179	150	76	250
10	8.0	68	217	44	50	185	238	215	160	140	63	180
11	11	61	194	42	1500	181	217	504	133	120	58	145
12	13	50	167	41	1000	169	222	760	103	103	57	110
13	14	46	150	40	700	164	327	604	84	96	54	87
14	13	40	130	39	500	154	408	490	134	110	52	63
15	13	36	110	38	350	137	497	429	518	86	48	56
16	11	32	100	37	299	142	415	445	305	74	48	42
17	10	29	90	36	350	119	403	363	249	64	46	33
18	9.1	27	82	35	672	103	377	308	192	59	42	27
19	10	26	74	35	1150	107	321	274	158	56	40	27
20	13	25	60	34	5300	105	289	247	835	100	36	25
21	13	26	56	33	2800	103	254	220	459	183	34	24
22	11	27	53	33	1640	101	237	196	798	173	32	24
23	11	29	51	32	4200	101	259	174	713	103	31	23
24	11	82	50	32	4580	105	320	157	525	84	29	24
25	67	202	49	31	1860	104	288	142	470	80	29	26
26	191	150	48	31	1140	97	248	140	440	75	28	23
27	68	106	47	31	809	105	227	137	349	84	26	22
28	46	101	46	33	665	103	227	128	290	75	26	21
29	34	126	45	34	---	97	781	123	248	185	25	20
30	27	107	50	33	---	125	816	114	218	137	24	20
31	24	---	82	31	---	248	---	119	---	98	26	---
TOTAL	731.2	1626	3648	1260	30300	5660	9548	9962	9069	4339	1522	1994
MEAN	23.6	54.2	118	40.6	1082	183	318	321	302	140	49.1	66.5
MAX	191	202	358	72	5300	534	816	760	835	332	84	250
MIN	6.0	15	45	31	35	97	194	114	84	56	24	20
CFSM	.14	.31	.68	.24	6.25	1.06	1.84	1.86	1.75	.81	.28	.38
IN.	.16	.35	.78	.27	6.52	1.22	2.05	2.14	1.95	.93	.33	.43

CAL YR 1980 TOTAL 73098.2 MEAN 200 MAX 2950 MIN 5.2 CFSM 1.16 IN 15.72
WTR YR 1981 TOTAL 79659.2 MEAN 218 MAX 5300 MIN 6.0 CFSM 1.26 IN 17.13

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 24...	1045	10	95	7.1	7.0	--	--	19	19	63
NOV 26...	1415	145	88	7.3	4.0	--	--	12	18	50
DEC 31...	1215	82	89	7.9	.5	.1	5.0	10	17	41
JAN 29...	1130	E34	88	7.1	1.0	--	--	13	19	45
FEB 26...	1430	1100	65	7.0	4.0	--	--	7	13	42
MAR 25...	1540	100	74	6.9	5.5	--	--	9	15	47
APR 22...	1540	227	69	6.8	10.5	.1	5.0	8	13	35
MAY 20...	1300	248	68	7.4	12.0	--	--	10	13	48
JUN 18...	0835	188	78	6.9	15.5	--	--	12	15	49
JUL 13...	1200	97	86	7.1	20.0	--	--	12	17	53
AUG 13...	1320	43	83	7.3	20.0	--	--	15	19	51
SEP 15...	1510	39	100	6.9	17.5	--	--	15	19	45

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 24...	.09	1.7	90	80	10	10	0	10	1	.03
NOV 26...	.07	19.6	110	60	50	30	0	40	1	.39
DEC 31...	.06	9.0	70	70	0	30	0	30	2	.44
JAN 29...	.06	--	80	80	0	10	0	30	--	--
FEB 26...	.06	125	140	130	10	100	20	80	9	27
MAR 25...	.06	12.7	90	90	0	40	0	40	1	.27
APR 22...	.05	21.5	60	60	0	30	0	30	1	.61
MAY 20...	.07	32.1	50	40	10	40	10	30	1	.67
JUN 18...	.07	24.9	60	50	10	30	0	30	3	1.5
JUL 13...	.07	13.9	100	80	20	20	0	30	1	.26
AUG 13...	.07	5.9	60	30	30	20	10	10	1	.12
SEP 15...	.06	4.7	100	70	30	10	0	10	9	.95

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA

LOCATION.--Lat 41°14'10", long 76°59'49", Lycoming County, Hydrologic Unit 02050206, on right bank, 100 ft (30 m) upstream from Market Street Bridge at South Williamsport, 350 ft (110 m) upstream from Hagermans Run.

DRAINAGE AREA.--5,682 mi^2 (14,716 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1895 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1925-28. WSP 1502: 1895-1904, 1912-13, 1919.

GAGE.-- Water-stage recorder. Datum of gage is 494.98 ft (150.870 m) National Geodetic Vertical Datum of 1929. Mar. 1, 1895 to Sept. 30, 1928, nonrecording gage at bridge, 100 ft (30 m) downstream at same datum. Prior to July 1980, on left bank, 100 ft (30 m) downstream at same datum.

REMARKS.--Water-discharge records good. Flow slightly regulated by 6 flood-control reservoirs which have a combined capacity of 440,200 acre-ft (543 hm^3).

AVERAGE DISCHARGE.--86 years, 8,934 ft^3/s (253.0 m^3/s), 21.32 in/yr (542 mm/yr), adjusted for storage 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 279,000 ft^3/s (7,900 m^3/s) June 23, 1972, gage height, 34.75 ft (10.592 m) from rating curve extended above 210,000 ft^3/s (5,950 m^3/s) on basis of slope-area measurement at gage height, 33.57 ft (10.232 m); minimum, 162 ft^3/s (4.59 m^3/s) Sept. 17, 1943; minimum daily, 251 ft^3/s (7.11 m^3/s) Sept. 13, 1932; minimum gage height, -0.67 ft (-0.204 m) Sept. 3, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1895, 32.4 ft (9.88 m) June 1, 1889, discharge, about 252,000 ft^3/s (7,140 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 105,000 ft^3/s (2,970 m^3/s) Feb. 21, gage height, 18.84 ft (5.742 m); minimum, 732 ft^3/s (20.7 m^3/s) Oct. 24, gage height, -0.25 ft (-0.076 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	974	2290	6310	2400	2000	27300	7670	43500	4320	6390	5470	1260
2	933	1910	5710	2300	2100	22100	8610	31200	4300	6320	4430	1400
3	923	1760	6120	2100	2700	19300	9470	23100	5000	7360	3750	1740
4	944	1730	10100	2000	3000	17100	9430	18200	7060	7360	3540	2620
5	922	1630	10200	1800	4000	15300	9370	15200	9710	6930	3350	2860
6	923	1730	8660	1600	4200	12900	8940	13100	10700	7660	3020	3710
7	939	1520	7590	1600	3500	10300	8280	11700	8560	7420	2820	4380
8	936	1510	6810	1800	3300	9120	7610	10100	7060	6510	2830	3840
9	923	1610	6590	1800	3500	8460	7140	8800	7060	5540	3100	4890
10	929	1950	7030	1700	3700	7780	6880	8060	16100	4910	3830	5590
11	930	2250	7940	1600	10000	7420	6760	8140	14700	4290	3190	4780
12	923	2650	8290	1500	25900	7030	6750	19900	11200	3820	2770	4250
13	926	2780	7700	1400	21900	6730	7700	36200	9110	3540	2490	3430
14	939	2550	7170	1400	20400	6490	10500	28100	8710	3300	2370	3000
15	956	2280	6300	1500	17900	6360	17300	23100	13400	3020	2180	2960
16	936	2100	5580	1600	15400	6200	20700	30700	22500	2790	2050	2660
17	929	2310	5110	1600	14000	6050	19300	25500	17900	2540	1960	2500
18	927	2480	4950	1600	15400	5650	17500	19800	15800	2400	1930	2370
19	932	2280	4500	1600	33700	5470	15500	15900	12800	2280	1820	2360
20	919	2250	4000	1600	65500	5440	13400	13400	15600	2430	1680	2150
21	898	2530	3000	1600	99800	5370	12000	11400	12200	4300	1580	2040
22	878	2420	2100	1600	77100	5150	10700	9740	11600	9970	1510	1920
23	880	2410	2000	1600	70300	4950	9940	8590	13200	8810	2130	1850
24	883	2820	2300	1600	96100	4760	10300	7620	12600	5940	1500	1730
25	1460	3610	2500	1600	67200	4670	11400	6830	10600	4800	1300	1680
26	2950	5140	2500	1600	53000	4620	11200	6160	10400	4020	1260	1600
27	7530	7620	2300	1600	43300	4580	10400	5820	11400	5000	1230	1520
28	6130	7120	2100	1700	35800	4560	9850	5390	10900	5460	1190	1440
29	4410	7090	2200	1800	---	4920	16500	5100	8830	5450	1180	1340
30	3340	6820	2500	1900	---	5180	48100	4860	7460	7660	1170	1320
31	2660	---	2400	2000	---	5990	---	4670	---	6750	1170	---
TOTAL	50692	89150	162560	53100	814700	267250	369200	479880	330780	164970	73800	79190
MEAN	1635	2972	5244	1713	29100	8621	12310	15480	11030	5322	2381	2640
MAX	7530	7620	10200	2400	99800	27300	48100	43500	22500	9970	5470	5590
MIN	878	1510	2000	1400	2000	4560	6750	4670	4300	2280	1170	1260
CFSM	.29	.52	.92	.30	5.12	1.52	2.17	2.72	1.94	.94	.42	.47
IN.	.33	.58	1.06	.35	5.33	1.75	2.42	3.14	2.17	1.08	.48	.52

CAL YR 1980 TOTAL 2534004 MEAN 6924 MAX 56300 MIN 878 CFSM 1.22 IN 16.59
WTR YR 1981 TOTAL 2935272 MEAN 8042 MAX 99800 MIN 878 CFSM 1.42 IN 19.22

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974, July 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1980 to current year.
pH: July 1980 to current year.
WATER TEMPERATURES: July 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1980.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR CURRENT YEAR.--July to September 1980:
SPECIFIC CONDUCTANCE: Maximum, 429 micromhos Sept. 28; minimum, 227 micromhos Aug. 22, 23.
pH: Maximum, 8.0 units Sept. 16, 18, 30; minimum, 6.6 units July 14, Aug. 8.
WATER TEMPERATURES: Maximum, 28.5°C July 21; minimum, 17.0°C Sept. 27, 28, 29.
Water year 1981:
SPECIFIC CONDUCTANCE: Maximum, 459 micromhos Oct. 25; minimum, 106 micromhos May 1, 2.
pH: Maximum, 8.0 units Oct. 1; minimum, 5.3 units May 12.
WATER TEMPERATURES: Maximum, 27.0°C July 12, 13; minimum, 0.5°C on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), JULY TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	317	308	310	---	---	---
2				---	---	---	319	311	314	---	---	---
3				---	---	---	314	306	310	325	315	320
4				---	---	---	325	309	318	337	325	330
5				---	---	---	338	325	333	345	334	338
6				---	---	---	330	318	323	353	344	348
7				---	---	---	344	329	336	358	351	354
8				---	---	---	325	288	300	371	358	364
9				284	250	267	337	292	313	390	371	380
10				287	279	283	349	337	344	400	389	395
11				280	236	250	338	316	325	401	397	398
12				280	242	266	321	310	317	402	393	396
13				353	279	310	329	308	314	394	384	390
14				374	354	367	364	327	338	384	371	376
15				365	345	356	367	339	353	372	367	369
16				345	326	335	354	343	349	378	368	373
17				325	300	313	343	292	320	385	376	381
18				300	292	295	304	284	292	389	382	386
19				309	289	297	306	261	285	398	388	393
20				347	311	327	260	241	249	405	397	400
21				364	349	359	241	232	237	416	405	409
22				362	333	349	232	227	229	426	414	419
23				330	310	320	236	227	231	428	425	427
24				310	286	298	248	235	242	428	417	423
25				285	276	280	258	248	254	417	400	408
26				296	281	289	267	256	262	418	402	409
27				308	297	302	277	265	271	428	415	419
28				312	308	311	---	---	---	429	418	425
29				317	311	314	---	---	---	418	407	413
30				327	316	323	---	---	---	408	397	405
31				328	317	325	---	---	---	---	---	---
MONTH				374	236	310	367	227	299	429	315	387

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	398	389	392	334	319	325	280	264	274	262	258	262
2	390	384	387	333	324	328	281	267	277	266	254	261
3	397	386	392	340	325	333	273	254	263	269	266	267
4	401	396	398	341	334	338	254	219	235	269	266	267
5	405	397	402	340	335	337	215	183	195	273	266	270
6	420	404	413	336	331	334	183	172	177	277	273	275
7	435	421	429	334	331	333	172	168	171	281	277	278
8	436	430	433	334	327	330	172	164	169	285	281	283
9	434	427	430	335	327	330	176	164	170	296	284	291
10	441	425	431	337	327	334	180	172	176	305	295	297
11	453	439	444	346	335	342	187	176	180	308	301	305
12	454	446	450	343	337	339	187	183	184	320	308	315
13	453	445	449	345	336	340	195	183	190	324	316	319
14	451	441	446	347	332	339	195	183	189	328	324	325
15	449	441	445	334	321	327	187	176	181	332	332	332
16	446	437	442	335	321	327	183	176	179	332	328	329
17	438	430	435	351	336	345	187	176	182	340	332	336
18	438	433	435	343	317	330	191	183	189	351	34C	346
19	439	435	437	319	311	314	191	187	190	355	348	351
20	443	435	440	312	305	308	195	187	192	351	348	350
21	447	440	444	316	309	312	203	191	197	348	348	348
22	450	444	447	328	316	322	211	199	204	---	---	---
23	456	447	451	336	326	331	211	206	209	---	---	---
24	457	449	453	338	331	335	219	211	216	---	---	---
25	459	436	447	332	325	328	238	223	230	---	---	---
26	444	405	427	333	321	327	251	238	245	---	---	---
27	432	315	393	325	301	308	262	254	259	---	---	---
28	416	298	362	318	298	308	258	246	250	347	343	345
29	369	299	327	313	268	290	258	246	251	344	338	340
30	376	352	368	269	257	265	262	258	259	339	336	337
31	353	327	340	---	---	---	258	258	258	345	339	342
MONTH	459	298	419	351	257	325	281	164	211	355	254	311

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	348	344	346	---	---	---	254	234	246	111	106	109
2	355	346	351	---	---	---	234	207	223	114	106	109
3	355	348	351	---	---	---	207	191	201	125	114	118
4	355	345	349	176	163	169	191	180	185	131	123	128
5	357	353	355	185	176	181	183	183	183	140	131	136
6	354	350	353	196	185	191	183	168	174	150	139	144
7	373	348	358	199	194	196	172	168	171	155	148	152
8	381	363	375	198	192	195	172	168	169	160	153	155
9	363	325	343	204	193	199	180	172	176	168	160	164
10	324	305	313	206	204	205	180	180	180	180	168	171
11	---	---	---	210	206	207	180	180	180	183	180	181
12	---	---	---	217	210	213	183	180	180	195	141	180
13	186	147	170	218	215	217	183	180	182	137	121	128
14	184	167	175	220	214	217	187	176	181	117	113	115
15	177	161	170	229	219	223	195	180	189	129	117	123
16	165	152	158	238	229	234	187	156	172	133	109	117
17	153	145	148	243	237	240	159	134	145	125	113	120
18	144	133	142	246	240	243	133	125	129	133	125	129
19	148	121	137	247	241	244	133	129	132	141	133	138
20	---	---	---	249	241	244	---	---	---	148	141	146
21	---	---	---	---	---	---	---	---	---	156	144	150
22	---	---	---	250	246	247	---	---	---	164	156	159
23	---	---	---	---	---	---	---	---	---	172	164	167
24	---	---	---	---	---	---	---	---	---	176	168	174
25	---	---	---	238	230	234	161	157	159	183	180	182
26	---	---	---	238	234	236	170	159	164	187	183	185
27	---	---	---	245	238	241	174	170	173	191	187	189
28	---	---	---	250	246	247	172	166	169	199	191	195
29	---	---	---	254	250	251	167	149	162	207	199	202
30	---	---	---	254	250	252	149	108	119	211	203	205
31	---	---	---	258	254	254	---	---	---	215	207	209
MONTH	381	121	270	258	163	223	254	108	174	215	106	154

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	223	215	217	209	205	207	216	195	200	357	354	355
2	230	219	223	209	203	206	236	203	219	357	354	355
3	238	230	235	209	206	207	246	236	242	365	355	361
4	256	238	246	209	201	205	248	242	245	371	363	368
5	258	198	228	221	202	211	241	239	241	373	366	369
6	249	207	225	222	214	218	243	239	241	378	364	370
7	268	241	256	217	202	211	254	243	249	---	---	---
8	241	224	230	205	200	203	256	252	254	---	---	---
9	224	209	215	203	197	200	257	249	253	---	---	---
10	209	171	201	205	198	201	265	255	258	---	---	---
11	170	150	156	211	202	205	280	265	270	---	---	---
12	164	156	161	215	211	212	296	279	289	---	---	---
13	164	156	160	218	214	216	286	232	252	---	---	---
14	---	---	---	224	217	220	245	230	236	230	216	223
15	---	---	---	229	222	225	255	246	252	249	230	242
16	183	168	175	233	228	230	267	254	259	249	244	247
17	172	152	158	241	232	237	280	266	273	249	241	245
18	160	152	155	250	240	246	284	276	280	252	245	248
19	164	160	163	258	250	255	288	282	285	256	252	254
20	172	148	163	264	257	261	290	286	288	265	256	259
21	176	152	167	273	257	262	295	287	290	283	264	272
22	183	176	181	276	255	266	300	295	298	313	283	297
23	183	180	182	306	263	290	311	298	306	338	312	330
24	191	183	188	305	266	286	316	310	312	336	315	325
25	200	189	195	267	255	258	331	315	321	315	311	313
26	191	189	190	256	254	255	336	321	332	315	304	312
27	202	187	193	259	254	257	321	300	310	313	306	310
28	223	202	212	258	228	245	328	305	316	315	311	314
29	224	215	218	239	226	231	345	328	336	316	314	315
30	215	205	210	278	236	254	355	344	351	315	312	313
31	---	---	---	294	218	273	359	353	356	---	---	---
MONTH	268	148	197	306	197	234	359	195	278	378	216	304

PH (STANDARD UNITS), JULY TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	7.4	7.2	7.3	---	---	---
2				---	---	---	7.5	7.3	7.4	---	---	---
3				---	---	---	7.4	7.3	7.3	7.8	7.4	7.6
4				---	---	---	7.3	7.1	7.2	7.8	7.4	7.6
5				---	---	---	7.2	7.0	7.1	7.8	7.5	7.6
6				---	---	---	7.1	6.9	7.0	7.7	7.4	7.6
7				---	---	---	6.9	6.7	6.7	7.7	7.4	7.5
8				---	---	---	6.9	6.6	6.8	7.7	7.4	7.5
9				7.2	7.0	7.1	7.0	6.9	6.9	7.6	7.3	7.5
10				7.1	6.9	7.0	7.0	6.9	7.0	7.5	7.3	7.4
11				7.3	7.0	7.1	7.2	7.0	7.1	7.5	7.3	7.4
12				7.2	6.9	7.1	7.4	7.1	7.2	7.5	7.2	7.4
13				6.9	6.7	6.9	7.6	7.3	7.4	7.6	7.3	7.4
14				6.8	6.6	6.7	7.4	7.2	7.3	7.7	7.4	7.5
15				7.1	6.8	7.0	7.2	7.0	7.1	7.9	7.5	7.6
16				7.4	7.0	7.2	7.1	7.0	7.1	8.0	7.5	7.7
17				7.6	7.2	7.4	7.3	7.0	7.1	7.9	7.6	7.7
18				7.7	7.3	7.5	7.2	6.9	6.9	8.0	7.6	7.8
19				7.5	7.2	7.4	6.9	6.7	6.8	7.8	7.6	7.7
20				7.2	6.8	7.0	7.0	6.8	6.9	7.7	7.5	7.6
21				6.8	6.7	6.7	7.2	6.9	7.0	7.5	7.2	7.4
22				6.8	6.7	6.8	7.3	7.0	7.1	7.2	7.0	7.1
23				7.0	6.8	6.9	7.4	7.1	7.2	7.2	7.0	7.1
24				7.2	6.9	7.1	7.4	7.1	7.3	7.3	7.0	7.1
25				7.5	7.2	7.3	7.3	7.1	7.2	7.2	7.0	7.1
26				7.5	7.3	7.4	7.3	7.1	7.1	7.3	7.1	7.2
27				7.3	7.1	7.2	7.3	7.1	7.2	7.4	7.2	7.3
28				7.1	7.0	7.1	---	---	---	7.6	7.2	7.4
29				7.1	7.0	7.0	---	---	---	7.9	7.4	7.6
30				7.2	7.0	7.1	---	---	---	8.0	7.5	7.7
31				7.3	7.1	7.2	---	---	---	---	---	---
MONTH				7.7	6.6	7.1	7.6	6.6	7.1	8.0	7.0	7.5

BEST DOCUMENT AVAILABLE

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	7.6	7.7	7.0	6.7	6.9	7.7	7.6	7.7	7.0	6.9	6.9
2	7.8	7.6	7.7	7.2	7.0	7.1	7.8	7.7	7.7	7.0	6.9	7.0
3	7.8	7.5	7.6	7.3	7.2	7.2	7.8	7.7	7.7	7.1	6.9	6.9
4	7.7	7.4	7.6	7.3	7.3	7.3	7.7	7.1	7.5	7.1	6.9	6.9
5	7.9	7.5	7.6	7.3	7.3	7.3	7.0	6.8	6.9	7.0	6.8	6.9
6	7.8	7.5	7.6	7.4	7.3	7.3	7.0	6.9	7.0	7.0	6.9	7.0
7	7.7	7.4	7.5	7.4	7.3	7.3	7.1	7.0	7.0	7.2	6.9	7.0
8	7.6	7.3	7.4	7.3	7.3	7.3	7.1	7.0	7.0	7.1	6.9	7.0
9	7.7	7.4	7.5	7.3	7.3	7.3	7.1	7.0	7.0	7.1	7.0	7.0
10	7.7	7.4	7.5	7.5	7.3	7.4	7.0	6.9	7.0	7.2	7.1	7.1
11	7.6	7.4	7.5	7.5	7.4	7.4	7.0	6.0	6.9	---	---	---
12	7.6	7.4	7.5	7.4	7.4	7.4	7.0	6.8	7.0	---	---	---
13	7.6	7.4	7.5	7.4	7.2	7.3	6.9	6.8	6.8	---	---	---
14	7.6	7.4	7.5	7.2	7.0	7.1	7.1	7.0	7.0	---	---	---
15	7.6	7.4	7.5	7.0	6.9	6.9	7.1	7.1	7.1	---	---	---
16	7.6	7.4	7.5	6.9	6.9	6.9	7.2	7.1	7.1	---	---	---
17	7.6	7.4	7.5	7.1	6.9	7.0	7.2	7.1	7.1	---	---	---
18	7.6	7.4	7.5	7.3	7.1	7.2	7.2	7.1	7.2	---	---	---
19	7.6	7.4	7.5	7.5	7.3	7.4	7.1	7.1	7.1	---	---	---
20	7.6	7.4	7.5	7.7	7.5	7.6	7.1	7.1	7.1	---	---	---
21	7.6	7.4	7.4	7.7	7.7	7.7	7.1	7.0	7.1	---	---	---
22	7.6	7.3	7.4	7.7	7.7	7.7	7.1	6.9	7.0	---	---	---
23	7.6	7.4	7.5	7.7	7.7	7.7	7.0	6.9	6.9	---	---	---
24	7.6	7.4	7.5	7.7	7.6	7.6	7.1	6.9	7.0	---	---	---
25	7.5	7.5	7.5	7.6	7.6	7.6	7.2	7.0	7.1	---	---	---
26	7.6	7.5	7.5	7.6	7.4	7.5	7.2	7.2	7.2	---	---	---
27	7.6	7.0	7.4	7.4	7.2	7.3	7.2	7.1	7.1	---	---	---
28	7.0	6.3	6.5	7.3	7.2	7.2	7.1	7.0	7.0	7.4	7.3	7.4
29	6.5	6.0	6.2	7.6	7.3	7.5	7.0	6.9	6.9	7.4	7.1	7.3
30	6.4	6.0	6.2	7.6	7.6	7.6	7.0	6.9	7.0	7.2	7.1	7.1
31	6.7	6.4	6.6	---	---	---	7.0	7.0	7.0	7.2	7.1	7.2
MONTH	8.0	6.0	7.4	7.7	6.7	7.3	7.8	6.8	7.1	7.4	6.8	7.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.2	7.1	7.2	---	---	---	6.7	6.5	6.6	6.3	6.1	6.2
2	7.1	7.1	7.1	---	---	---	6.6	6.6	6.6	6.3	6.3	6.3
3	7.1	7.0	7.0	---	---	---	6.6	6.6	6.6	6.4	6.3	6.3
4	7.1	7.0	7.0	6.7	6.6	6.6	6.7	6.6	6.6	6.3	6.3	6.3
5	7.3	7.1	7.2	6.8	6.7	6.8	6.8	6.6	6.7	6.3	6.3	6.3
6	7.4	7.3	7.3	6.8	6.6	6.7	6.9	6.7	6.8	6.3	6.3	6.3
7	7.3	6.9	7.1	6.6	6.6	6.6	6.9	6.8	6.8	6.4	6.3	6.3
8	7.1	6.9	7.0	6.7	6.6	6.6	6.8	6.8	6.8	6.4	6.2	6.3
9	7.2	7.1	7.2	6.6	6.4	6.5	6.8	6.6	6.7	6.3	6.2	6.2
10	7.2	7.2	7.2	6.5	6.4	6.5	6.6	6.5	6.6	6.3	6.2	6.2
11	7.3	7.0	7.2	6.5	6.4	6.4	6.6	6.5	6.6	6.3	6.3	6.3
12	7.4	7.0	7.2	6.5	6.5	6.5	6.6	6.5	6.5	6.3	5.3	6.0
13	7.3	7.0	7.2	6.6	6.5	6.5	6.6	6.5	6.6	6.0	5.5	5.8
14	7.0	6.8	6.8	6.7	6.6	6.6	6.6	6.5	6.6	6.2	6.0	6.1
15	6.8	6.8	6.8	6.6	6.6	6.6	6.4	6.2	6.3	6.2	6.1	6.1
16	6.9	6.7	6.8	6.7	6.6	6.6	6.6	6.4	6.5	6.1	5.9	6.0
17	6.9	6.7	6.8	6.7	6.6	6.7	6.6	6.5	6.6	6.2	6.1	6.1
18	---	---	---	6.8	6.7	6.7	6.6	6.6	6.6	6.2	6.2	6.2
19	---	---	---	6.7	6.6	6.7	6.6	6.5	6.6	6.3	6.2	6.3
20	---	---	---	6.6	6.6	6.6	---	---	---	6.3	6.2	6.3
21	---	---	---	6.6	6.6	6.6	---	---	---	6.2	6.2	6.2
22	---	---	---	6.6	6.5	6.5	---	---	---	6.3	6.2	6.2
23	---	---	---	---	---	---	---	---	---	6.2	6.2	6.2
24	---	---	---	---	---	---	---	---	---	6.2	6.2	6.2
25	---	---	---	6.7	6.5	6.6	6.7	6.5	6.6	6.2	6.2	6.2
26	---	---	---	6.7	6.7	6.7	6.5	6.3	6.4	6.3	6.2	6.2
27	---	---	---	6.7	6.7	6.7	6.5	6.3	6.4	6.3	6.2	6.3
28	---	---	---	6.7	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.4
29	---	---	---	6.7	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.3
30	---	---	---	6.6	6.5	6.6	6.5	6.0	6.1	6.4	6.3	6.3
31	---	---	---	6.6	6.5	6.6	---	---	---	6.4	6.3	6.3
MONTH	7.4	6.7	7.1	6.8	6.4	6.6	6.9	6.0	6.6	6.4	5.3	6.2

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.4	6.3	6.4	6.7	6.7	6.7	6.7	6.5	6.6	7.1	7.0	7.0
2	6.4	6.4	6.4	6.8	6.7	6.7	6.6	6.6	6.6	7.1	7.0	7.0
3	6.4	6.3	6.4	6.7	6.7	6.7	6.7	6.6	6.6	7.0	7.0	7.0
4	6.4	6.2	6.3	6.7	6.7	6.7	6.8	6.7	6.7	7.0	6.9	7.0
5	6.4	6.1	6.3	6.7	6.6	6.6	6.9	6.7	6.8	6.9	6.8	6.9
6	6.3	6.0	6.2	6.6	6.5	6.6	7.1	6.8	6.9	6.8	6.6	6.7
7	6.5	5.9	6.1	6.7	6.6	6.7	7.0	6.9	7.0	---	---	---
8	6.8	6.5	6.7	6.7	6.6	6.7	7.0	6.9	7.0	---	---	---
9	6.9	6.8	6.8	6.8	6.6	6.7	7.0	6.9	6.9	---	---	---
10	6.8	6.2	6.6	6.8	6.7	6.8	6.9	6.8	6.8	---	---	---
11	6.3	6.2	6.2	6.9	6.8	6.8	6.9	6.7	6.8	---	---	---
12	6.3	6.2	6.3	6.9	6.8	6.8	6.7	6.6	6.6	---	---	---
13	6.5	6.4	6.4	6.9	6.8	6.8	6.8	6.6	6.7	---	---	---
14	---	---	---	7.0	6.9	6.9	6.9	6.8	6.8	---	---	---
15	---	---	---	7.1	7.0	7.0	6.9	6.8	6.8	---	---	---
16	---	---	---	7.1	7.0	7.0	6.9	6.8	6.9	---	---	---
17	6.2	6.1	6.2	7.0	7.0	7.0	7.0	6.9	6.9	---	---	---
18	6.3	6.2	6.2	7.0	6.9	7.0	7.0	6.9	6.9	---	---	---
19	6.2	6.1	6.2	6.9	6.9	6.9	7.0	6.9	7.0	---	---	---
20	6.9	6.1	6.5	6.9	6.8	6.9	7.0	6.9	7.0	---	---	---
21	6.5	6.4	6.5	6.9	6.8	6.8	7.0	6.9	7.0	---	---	---
22	6.5	6.4	6.4	6.9	6.8	6.8	7.0	6.9	6.9	---	---	---
23	6.5	6.4	6.5	6.8	6.2	6.4	7.1	6.9	7.0	7.3	7.1	7.2
24	6.4	6.1	6.2	6.6	6.2	6.4	7.1	7.0	7.0	7.4	7.2	7.3
25	6.3	6.1	6.2	6.8	6.6	6.7	7.1	7.0	7.0	7.5	7.2	7.3
26	6.6	6.3	6.5	6.9	6.8	6.8	7.2	6.9	7.1	7.6	7.2	7.4
27	6.7	6.5	6.6	6.8	6.8	6.8	7.5	7.2	7.4	7.6	7.3	7.4
28	6.5	6.1	6.2	7.0	6.8	6.8	7.5	7.3	7.4	7.6	7.2	7.4
29	6.6	6.1	6.4	7.0	6.8	6.9	7.3	7.2	7.2	7.7	7.3	7.5
30	6.7	6.6	6.7	6.8	6.4	6.7	7.3	7.1	7.2	7.8	7.3	7.5
31	---	---	---	6.5	6.1	6.2	7.2	7.0	7.1	---	---	---
MONTH	6.9	5.9	6.4	7.1	6.1	6.8	7.5	6.5	6.9	7.8	6.6	7.2

TEMPERATURE (°C) OF WATER, JULY TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	25.0	24.5	25.0	---	---	---
2				---	---	---	25.5	24.5	25.0	---	---	---
3				---	---	---	25.0	24.5	25.0	26.0	25.0	25.5
4				---	---	---	26.0	24.5	25.0	26.5	25.0	25.5
5				---	---	---	26.5	25.5	26.0	26.5	25.0	25.5
6				---	---	---	27.0	26.0	26.5	26.5	25.0	25.5
7				---	---	---	27.5	26.0	26.5	25.5	24.0	25.0
8				---	---	---	28.0	26.5	27.0	25.0	23.5	24.0
9				24.5	23.0	24.0	28.0	26.5	27.0	24.5	23.0	23.5
10				25.0	23.5	24.5	27.0	26.5	26.5	24.0	22.0	23.0
11				25.0	24.5	25.0	26.5	26.0	26.5	23.5	21.5	22.0
12				25.0	24.5	25.0	26.5	26.0	26.5	23.5	21.0	22.0
13				25.5	24.0	25.0	26.0	25.0	25.5	24.0	21.5	22.5
14				26.5	24.5	25.5	25.5	25.0	25.0	23.5	22.0	22.0
15				26.5	25.0	25.5	25.0	25.0	25.0	22.5	21.0	22.0
16				26.5	25.5	26.0	25.0	23.5	24.0	21.5	20.5	21.0
17				26.5	25.5	26.0	23.5	23.0	23.5	21.5	20.5	21.0
18				27.0	25.5	26.5	23.5	22.5	23.0	21.5	20.5	21.0
19				27.0	26.0	26.5	23.0	22.0	22.0	21.5	20.0	20.5
20				27.5	26.5	27.0	23.5	22.0	23.0	21.0	20.0	20.5
21				28.5	27.0	28.0	23.5	23.0	23.0	21.5	20.5	21.0
22				27.5	26.5	27.0	23.5	22.5	23.0	23.0	21.0	21.5
23				27.0	26.0	26.5	24.0	23.0	23.5	23.0	21.0	22.0
24				26.5	25.5	26.0	24.5	23.0	23.5	22.0	20.5	21.0
25				26.5	25.0	26.0	25.0	23.0	24.0	20.5	19.5	20.5
26				26.5	25.0	26.0	25.0	23.5	24.5	19.5	18.0	19.5
27				26.5	25.0	26.0	25.5	24.0	24.5	19.0	17.0	18.5
28				26.0	25.0	25.5	---	---	---	19.0	17.0	18.5
29				26.0	25.0	25.5	---	---	---	19.0	17.0	18.0
30				26.0	25.0	25.0	---	---	---	19.5	18.0	18.5
31				25.0	24.5	25.0	---	---	---	---	---	---
MONTH				28.5	23.0	26.0	28.0	22.0	25.0	26.5	17.0	22.0

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.5	18.0	18.5	7.5	7.0	7.0	4.0	3.5	3.5	1.0	1.0	1.0
2	18.0	17.0	18.0	7.0	7.0	7.0	4.0	3.5	4.0	1.0	.5	1.0
3	18.5	16.5	17.0	7.5	6.5	7.0	4.0	3.5	3.5	1.0	.5	1.0
4	17.0	16.0	16.5	8.0	7.0	7.5	3.5	2.5	3.0	---	---	---
5	17.0	15.5	16.0	7.5	7.0	7.0	2.5	1.5	2.0	1.0	.5	1.0
6	16.5	14.5	15.5	7.0	6.5	7.0	1.5	1.5	1.5	1.0	.5	1.0
7	16.5	15.0	15.5	8.0	7.0	7.0	2.0	1.5	1.5	1.0	.5	1.0
8	16.5	14.5	15.5	8.5	7.5	8.0	3.0	2.0	2.5	---	---	---
9	16.5	14.5	15.5	8.0	7.5	7.5	4.0	3.0	3.5	1.0	.5	.5
10	14.5	14.0	14.5	7.5	7.0	7.5	4.5	4.0	4.5	1.0	.5	.5
11	15.5	14.0	14.5	7.0	6.0	6.5	4.5	4.0	4.5	---	---	---
12	14.0	13.0	13.5	6.0	5.5	6.0	4.0	3.5	4.0	1.0	.5	1.0
13	13.0	11.5	12.5	5.5	5.5	5.5	3.5	3.0	3.5	1.0	.5	1.0
14	13.0	11.5	12.0	6.0	5.5	5.5	3.0	2.0	2.5	1.0	1.0	1.0
15	13.0	12.0	12.0	6.0	5.5	5.5	2.0	1.5	1.5	1.0	1.0	1.0
16	13.5	12.0	13.0	6.0	5.5	5.5	1.5	1.0	1.0	1.0	1.0	1.0
17	14.5	13.0	13.5	5.5	4.0	5.0	1.0	1.0	1.0	1.0	.5	1.0
18	14.0	13.5	14.0	4.5	4.0	4.0	1.0	1.0	1.0	1.0	.5	1.0
19	14.5	13.5	13.5	4.0	3.5	3.5	1.0	.5	1.0	1.0	1.0	1.0
20	13.5	12.5	13.0	3.5	3.0	3.0	---	---	---	1.0	1.0	1.0
21	13.0	12.0	12.5	3.0	3.0	3.0	---	---	---	---	---	---
22	12.5	11.5	12.0	4.0	3.0	3.5	1.0	1.0	1.0	---	---	---
23	13.0	11.0	11.5	3.5	3.0	3.5	1.0	1.0	1.0	---	---	---
24	12.0	11.0	11.5	4.0	3.5	3.5	1.0	1.0	1.0	---	---	---
25	11.0	10.5	11.0	4.0	4.0	4.0	1.0	.5	1.0	---	---	---
26	10.5	9.0	9.5	4.0	3.5	4.0	1.0	.5	1.0	---	---	---
27	9.0	8.0	8.5	4.0	3.5	4.0	1.0	.5	1.0	---	---	---
28	8.0	8.0	8.0	4.0	3.5	3.5	1.0	.5	1.0	1.0	1.0	1.0
29	8.0	8.0	8.0	3.5	3.5	3.5	1.0	.5	1.0	1.0	.5	1.0
30	8.0	7.5	7.5	3.5	3.5	3.5	1.0	1.0	1.0	1.0	.5	.5
31	8.0	7.0	7.5	---	---	---	1.0	1.0	1.0	1.0	.5	.5
MONTH	19.5	7.0	13.0	8.5	3.0	5.5	4.5	.5	2.0	1.0	.5	1.0

		FEBRUARY			MARCH			APRIL			MAY	
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.5	.5	.5	---	---	---	11.5	11.0	11.5	11.5	11.0	11.5
2	1.0	.5	.5	---	---	---	12.0	11.0	11.5	11.5	10.5	11.0
3	1.0	.5	.5	---	---	---	12.5	11.5	12.0	12.0	11.0	11.5
4	.5	.5	.5	4.5	4.0	4.5	13.5	12.0	13.0	13.5	11.5	12.5
5	.5	.5	.5	4.0	3.5	4.0	13.5	13.0	13.5	14.5	13.0	14.0
6	.5	.5	.5	4.0	3.5	3.5	13.0	11.5	12.5	14.5	13.5	14.0
7	.5	.5	.5	4.0	3.5	4.0	11.5	11.0	11.5	14.0	13.0	13.5
8	.5	.5	.5	4.0	4.0	4.0	12.0	11.0	11.5	13.5	10.5	12.0
9	.5	.5	.5	4.5	4.0	4.0	12.5	11.5	12.0	14.5	13.5	14.0
10	.5	.5	.5	4.5	4.5	4.5	13.0	11.5	12.5	15.5	14.5	15.0
11	.5	.5	.5	5.0	4.5	4.5	13.5	12.0	13.0	16.5	15.0	16.0
12	.5	.5	.5	5.0	4.0	4.5	13.0	13.0	13.0	16.5	15.0	16.0
13	.5	.5	.5	6.0	4.0	4.5	13.0	12.0	12.5	13.5	12.5	13.0
14	.5	.5	.5	5.5	4.5	5.5	12.0	10.5	11.0	13.5	12.5	13.0
15	.5	.5	.5	5.5	4.5	5.0	10.5	9.5	10.0	14.5	13.5	14.0
16	.5	.5	.5	5.5	5.0	5.5	10.5	9.5	10.0	14.5	13.0	14.0
17	.5	.5	.5	5.0	4.0	4.5	10.5	10.0	10.5	13.5	13.0	13.0
18	.5	.5	.5	4.0	3.5	3.5	11.5	10.0	11.0	14.0	13.0	13.5
19	---	---	---	3.5	3.0	3.0	12.0	11.5	11.5	14.0	13.0	13.5
20	---	---	---	3.0	2.5	3.0	---	---	---	14.5	13.0	13.5
21	---	---	---	---	---	---	---	---	---	15.0	13.5	14.5
22	---	---	---	4.0	3.0	3.5	---	---	---	16.5	15.0	15.5
23	---	---	---	---	---	---	---	---	---	17.5	16.0	17.0
24	---	---	---	---	---	---	---	---	---	19.0	17.0	18.0
25	---	---	---	6.5	6.0	6.5	11.0	10.0	10.5	20.0	18.0	19.5
26	---	---	---	7.0	6.5	6.5	10.5	9.5	10.0	20.5	19.0	20.0
27	---	---	---	7.0	7.0	7.0	12.0	10.5	11.0	21.0	20.0	20.5
28	---	---	---	8.5	7.0	7.5	13.5	12.0	12.5	20.5	20.0	20.5
29	---	---	---	9.5	8.0	8.5	14.0	13.5	13.5	21.0	20.0	20.5
30	---	---	---	10.0	9.5	9.5	13.5	11.5	12.5	21.5	20.5	21.0
31	---	---	---	11.5	10.0	10.5	---	---	---	21.5	21.0	21.5
MONTH	1.0	.5	.5	11.5	2.5	5.5	14.0	9.5	12.0	21.5	10.5	15.5

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	21.0	21.5	23.0	21.5	22.0	23.0	21.5	22.0	23.0	22.0	22.5
2	21.5	20.0	20.5	22.5	21.5	22.0	23.5	22.5	23.0	22.0	21.5	22.0
3	20.0	19.0	19.5	22.0	21.0	21.5	24.0	23.0	23.5	21.5	21.0	21.5
4	20.0	19.0	19.5	21.5	21.0	21.0	24.0	23.5	23.5	21.0	20.5	21.0
5	20.5	19.0	20.0	21.5	21.0	21.0	---	---	---	20.5	20.0	20.5
6	22.0	20.5	21.5	22.5	21.0	21.5	---	---	---	20.5	20.0	20.0
7	22.0	21.5	21.5	23.5	21.5	22.5	24.0	23.0	23.5	---	---	---
8	22.5	21.5	22.0	24.5	23.0	23.5	24.5	23.5	23.5	---	---	---
9	23.0	21.5	22.0	25.5	24.0	25.0	24.5	23.5	24.0	---	---	---
10	22.5	20.5	21.5	26.0	25.0	26.0	25.0	23.5	24.0	---	---	---
11	19.5	19.0	19.5	26.5	26.0	26.0	25.0	24.0	25.0	---	---	---
12	20.0	18.5	19.5	27.0	26.0	26.5	25.0	24.5	25.0	---	---	---
13	20.5	19.5	20.0	27.0	26.0	26.5	25.0	24.5	25.0	---	---	---
14	---	---	---	26.5	26.0	26.0	25.0	24.0	24.5	21.5	20.5	21.0
15	---	---	---	26.0	25.0	25.5	25.0	24.0	24.5	21.5	21.0	21.5
16	---	---	---	25.0	24.5	25.0	24.5	23.5	24.0	21.5	21.0	21.0
17	21.5	21.0	21.5	25.5	24.0	25.0	23.5	22.0	23.0	21.0	20.5	21.0
18	21.5	20.5	21.0	26.0	24.0	25.0	23.5	21.5	22.5	20.5	19.5	20.0
19	21.5	20.5	21.0	26.0	24.5	25.0	23.5	21.5	22.5	20.0	19.0	19.5
20	21.5	20.0	21.0	26.0	25.0	25.5	23.5	22.0	23.0	19.0	18.5	18.5
21	20.0	19.5	19.5	25.5	25.0	25.0	24.0	22.0	23.0	18.5	17.5	18.0
22	20.5	20.0	20.0	25.0	23.5	24.0	24.0	23.0	23.5	18.0	17.0	17.5
23	20.5	19.5	20.0	24.0	23.0	23.5	24.0	22.0	23.0	17.0	15.5	16.5
24	20.5	20.0	20.5	23.5	23.0	23.5	23.5	22.0	23.0	16.0	14.5	15.5
25	20.5	20.0	20.5	23.0	22.0	22.0	23.5	22.0	23.0	16.0	14.5	15.5
26	20.5	19.0	19.5	22.0	21.5	21.5	23.5	21.5	23.0	16.5	15.5	16.0
27	20.0	18.5	19.0	22.0	21.0	21.5	24.0	22.0	23.0	17.0	16.0	16.5
28	20.5	19.0	19.5	22.0	21.5	21.5	23.5	22.5	23.0	17.0	16.0	16.5
29	21.0	19.5	20.5	21.5	21.0	21.0	24.0	22.5	23.0	16.0	15.5	15.5
30	22.0	20.5	21.5	21.0	20.5	21.0	24.0	23.0	23.0	15.5	14.5	15.5
31	---	---	---	22.0	20.5	21.5	23.5	23.0	23.0	---	---	---
MONTH	23.0	18.5	20.5	27.0	20.5	23.5	25.0	21.5	23.5	23.0	14.5	19.0

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA

LOCATION.--Lat 41°19'26", long 76°54'42", Lycoming County, Hydrologic Unit 02050206, on left bank 500 ft (150 m) downstream from highway bridge at Loyalsockville, 2.5 mi (4.0 km) downstream from Wallis Run and 7.3 mi (11.7 km) upstream from mouth.

DRAINAGE AREA.--443 mi^2 (1,147 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1925 to September 1974, October 1975 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1969, published as "at Loyalsock".

REVISED RECORDS.--WSP 756: Drainage area. WSP 871: 1938(M). WSP 1051: 1926(M), 1933(M), 1936(M). WSP 1302: 1926-30. WSP 1502: 1932-33, 1935(M), 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 585.63 ft (178.500 m) Pennsylvania Department of Transportation datum. Prior to Sept. 16, 1926 nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--55 years, 758 ft^3/s (21.47 m^3/s), 23.22 in/yr (590 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,700 ft^3/s (2,510 m^3/s) June 23, 1972, gage height, 14.74 ft (4.493 m), from floodmark in gage well, from rating curve extended above 16,000 ft^3/s (450 m^3/s) on basis of slope-area measurement at gage height, 12.20 ft (3.719 m); minimum, 11 ft^3/s (0.31 m^3/s) Sept. 25, 26, Nov. 24, 1964; minimum gage height, 2.11 ft (0.643 m) Aug. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,400 ft^3/s (181 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	2315	ice jam		*10.49	3.197	Feb. 24	0145	*22,500	637	9.75	2.972
Feb. 20	1515	13,600	385	8.51	2.594						

Minimum discharge, 21 ft^3/s (0.59 m^3/s) Oct. 1, gage height, 2.90 ft (0.884 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	66	309	170	72	1350	484	1220	271	245	134	46
2	26	56	302	150	500	1130	624	1060	285	271	121	48
3	29	52	1010	135	370	948	647	889	561	326	102	56
4	28	53	730	120	280	768	559	763	698	300	102	69
5	26	43	636	110	210	737	547	678	614	331	100	76
6	32	45	482	105	180	658	590	623	462	450	94	82
7	31	43	374	140	150	590	533	581	374	372	96	130
8	29	46	362	120	140	543	485	517	329	281	103	277
9	27	66	408	110	125	511	462	462	341	239	110	404
10	25	99	514	104	120	488	476	422	382	210	108	291
11	29	106	499	100	6500	474	455	700	319	179	104	205
12	32	100	395	96	4800	453	448	2130	276	164	102	155
13	33	87	357	93	3400	430	556	1660	237	149	88	139
14	30	69	318	92	2500	412	732	1220	261	154	83	125
15	32	64	270	90	2000	373	1010	1020	1510	143	82	124
16	28	58	240	87	1570	384	828	1090	1360	134	81	113
17	28	54	220	84	1470	344	763	927	873	113	82	94
18	29	52	200	82	2120	296	735	752	647	108	78	85
19	29	50	180	80	3560	301	643	653	504	99	70	93
20	26	56	150	78	9960	297	579	583	483	115	61	89
21	28	67	140	76	7270	293	527	521	461	331	55	90
22	28	71	130	74	4480	286	484	462	613	388	52	91
23	28	72	125	72	7140	276	503	406	854	265	53	89
24	26	134	120	70	12600	283	674	364	564	194	48	91
25	94	677	115	69	4690	282	665	333	472	164	48	103
26	338	568	110	68	2940	269	590	310	526	148	46	90
27	266	387	107	72	2110	272	531	320	447	163	47	86
28	161	331	105	76	1650	273	506	300	361	164	44	79
29	111	404	102	76	---	263	1030	279	307	186	45	75
30	92	372	110	74	---	291	1610	284	272	215	41	77
31	80	---	210	68	---	498	---	306	---	174	42	---
TOTAL	1824	4348	9330	2941	82907	14773	19276	21835	15664	6775	2422	3572
MEAN	58.8	145	301	94.9	2961	477	643	704	522	219	78.1	119
MAX	338	677	1010	170	12600	1350	1610	2130	1510	450	134	404
MIN	23	43	102	68	72	263	448	279	237	99	41	46
CFSM	.13	.33	.68	.21	6.68	1.08	1.45	1.59	1.18	.49	.18	.27
IN.	.15	.37	.78	.25	6.96	1.24	1.62	1.83	1.32	.57	.20	.30

CAL YR 1980 TOTAL 180052 MEAN 492 MAX 7810 MIN 16 CFSM 1.11 IN 15.12
WTR YR 1981 TOTAL 185667 MEAN 509 MAX 12600 MIN 23 CFSM 1.15 IN 15.59

01552000 LOYALSOCK CR AT LOYALSOCKVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
24...	1215	25	72	7.3	7.0	--	--	20	13	50
NOV										
25...	1715	773	78	7.0	4.0	--	--	12	12	43
DEC										
31...	1330	E210	65	7.9	.5	.1	5.0	12	15	35
JAN										
29...	1230	E86	72	7.2	.5	--	--	14	11	33
FEB										
27...	0830	2180	60	7.2	3.0	--	--	9	9.7	40
MAR										
25...	1700	273	65	7.4	6.0	--	--	10	11	46
APR										
22...	1650	500	61	6.9	12.0	--	--	11	12	25
MAY										
20...	1415	629	61	6.8	14.5	--	--	9	11	41
JUN										
18...	1100	693	63	6.9	19.5	--	--	16	9.3	41
JUL										
13...	1400	136	85	7.1	27.0	--	--	15	10	39
AUG										
10...	0910	100	67	7.4	23.0	--	--	20	10	42
SEP										
15...	1645	121	74	7.0	20.0	--	--	16	9.6	42

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT										
24...	.07	3.3	70	70	0	10	10	0	1	.07
NOV										
25...	.06	89.7	120	110	10	10	0	20	7	15
DEC										
31...	.05	--	40	20	20	0	0	0	2	--
JAN										
29...	.04	--	120	110	10	10	10	0	1	--
FEB										
27...	.05	235	90	70	20	50	20	30	1	5.9
MAR										
25...	.06	33.9	230	230	0	20	10	10	1	.74
APR										
22...	.03	33.7	50	40	10	10	0	10	1	1.3
MAY										
20...	.06	69.6	60	50	10	20	10	10	1	1.7
JUN										
18...	.06	76.7	70	60	10	10	0	10	16	30
JUL										
13...	.05	14.3	150	140	10	<10	0	<10	1	.37
AUG										
10...	.06	11.3	170	--	<10	20	--	<10	1	.27
SEP										
15...	.06	13.7	130	100	30	<10	--	<10	2	.65

BEST DOCUMENT AVAILABLE

01552500 MUNCY CREEK NEAR SONESTOWN, PA

LOCATION.--Lat 41°21'25", long 76°32'06", Sullivan County, Hydrologic Unit 02050206, on right bank 150 ft (46 m) downstream from Slip Run, 185 ft (56 m) downstream from bridge on Legislative Route 611, and 1.2 mi (1.9 km) east of Sonestown.

DRAINAGE AREA.--23.8 mi^2 (61.6 km^2).

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1502: 1941-42.

GAGE.--Water-stage recorder. Datum of gage is 1,025.01 ft (312.423 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 31, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 48.3 ft^3/s (1.368 m^3/s), 27.57 in/yr (700 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,260 ft^3/s (234 m^3/s) June 22, 1972, gage height, 8.94 ft (2.725 m) from rating curve extended above 3,400 ft^3/s (96.3 m^3/s); minimum, 0.1 ft^3/s (0.003 m^3/s) Sept. 11, 12, 13, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 9.3 ft (2.8 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft^3/s (31.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1815	ice jam		*5.51	1.679	Feb. 23	1945	*1,840	52.1	5.36	1.634
Feb. 20	0830	1,180	33.4	4.52	1.378						

Minimum discharge, 1.4 ft^3/s (0.04 m^3/s) Oct. 1, 2, gage height, 1.34 ft (0.408 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	3.6	29	12	4.5	78	29	64	11	16	5.7	3.9
2	1.7	3.3	71	11	40	65	40	53	22	28	5.2	4.5
3	2.7	3.1	114	9.7	33	53	45	43	23	22	4.9	5.5
4	2.5	3.1	65	9.0	27	47	32	37	37	19	5.2	5.9
5	2.0	3.2	47	9.0	23	42	27	32	47	24	8.0	4.6
6	1.7	3.0	38	8.3	20	37	40	30	29	40	5.9	5.3
7	1.7	2.9	35	9.8	18	32	33	26	24	22	4.9	38
8	1.7	4.8	37	8.8	16	29	27	22	19	17	8.9	48
9	1.7	6.0	41	8.2	14	27	24	19	39	14	7.0	41
10	1.7	7.0	50	7.9	12	26	23	18	26	12	5.2	18
11	2.4	5.0	39	7.6	700	25	22	241	22	11	10	13
12	2.8	4.4	33	7.2	587	24	21	346	17	9.4	13	11
13	2.4	3.8	29	6.8	276	23	30	187	15	8.8	7.4	9.0
14	2.4	3.6	26	6.4	209	22	50	118	30	10	6.3	10
15	2.6	3.6	25	6.2	137	20	90	103	284	7.8	5.7	13
16	2.5	3.4	23	6.0	109	18	70	97	124	7.3	7.0	10
17	2.4	3.2	22	5.6	127	17	54	66	82	6.6	5.3	32
18	3.2	8.5	20	5.4	260	15	49	52	57	6.0	4.4	33
19	4.1	6.3	19	5.2	373	14	39	42	44	5.5	4.2	26
20	3.8	4.1	17	5.0	824	13	31	36	43	14	3.8	20
21	3.6	3.7	16	4.8	476	13	27	29	46	32	3.5	16
22	3.6	3.6	15	4.6	325	12	23	25	78	24	3.4	19
23	3.6	3.5	14	4.5	647	11	22	21	59	12	3.3	25
24	3.5	106	13	4.4	619	11	45	18	41	8.5	3.2	18
25	32	77	12	4.4	307	10	35	15	40	7.6	4.1	15
26	28	44	12	4.6	188	9.8	31	13	41	8.8	3.3	13
27	9.2	32	11	4.7	127	9.4	27	12	31	13	3.0	12
28	6.2	43	11	4.7	99	9.2	25	11	24	8.2	2.9	15
29	4.9	42	10	4.5	---	9.0	50	12	20	9.4	2.9	11
30	4.1	32	14	4.2	---	25	100	20	18	7.8	2.8	10
31	3.7	---	12	4.0	---	40	---	16	---	6.5	3.2	---
TOTAL	150.0	472.7	920	204.5	6597.5	786.4	1161	1824	1393	438.4	163.6	505.7
MEAN	4.84	15.8	29.7	6.60	236	25.4	38.7	58.8	46.4	14.1	5.28	16.9
MAX	32	106	114	12	824	78	100	346	284	40	13	48
MIN	1.6	2.9	10	4.0	4.5	9.0	21	11	11	5.5	2.8	3.9
CFSM	.20	.66	1.25	.28	9.92	1.07	1.63	2.47	1.95	.59	.22	.71
IN.	.23	.74	1.44	.32	10.31	1.23	1.81	2.85	2.18	.69	.26	.79

CAL YR 1980 TOTAL 12838.4 MEAN 35.1 MAX 700 MIN 1.4 CFSM 1.48 IN 20.07
WTR YR 1981 TOTAL 14616.8 MEAN 40.0 MAX 824 MIN 1.6 CFSM 1.68 IN 22.85

01553130 SAND SPRING RUN NEAR WHITE DEER, PA

LOCATION.--Lat 41°03'31", long 77°04'37", Union County, Hydrologic Unit 02050206, on right bank 12 ft (3.7 m) downstream from bridge on White Deer Creek Road, 500 ft (150 m) upstream from mouth, and 11.3 mi (18.2 km) west of White Deer.

DRAINAGE AREA.--4.93 mi² (12.77 km²).

PERIOD OF RECORD.--January 1968 to March 1981 (discontinued as a continuous-record station March 1981; converted to a low-flow partial-record station).

REVISED RECORDS.--WDR PA-72-1: 1970(M), 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 1,037.16 ft (316.126 m) National Geodetic Vertical Datum of 1929. Prior to May 15, 1968 nonrecording gage at bridge 20 ft (6 m) upstream at same datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years (water years 1969-80), 9.28 ft³/s (0.263 m³/s) 25.53 in/yr (648 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,000 ft³/s (28.3 m³/s) June 22, 1972, gage height, 5.68 ft (1.731 m), from rating curve extended above 200 ft³/s (5.7 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.83 ft³/s (0.024 m³/s) Aug. 27, 28, 29, 30, 31, Sept. 1, 11, 12, 13, 14, 23, 24, Oct. 30, 1980; minimum gage height, 2.57 ft (0.783 m) Sept. 9, 10, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges during period October 1980 to March 1981 above base of 55 ft³/s (1.56 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1645	ice jam		*4.78	1.457	Feb. 23	1900	*452	12.8	4.54	1.384
Feb. 20	0845	183	5.18	4.02	1.225						

Minimum daily discharge, 0.83 ft³/s (0.024 m³/s) Oct. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	1.7	1.2	.86	25						
2	1.3	1.1	3.4	1.1	10	21						
3	1.4	1.1	6.3	1.1	6.0	18						
4	1.7	1.2	3.6	1.1	4.5	15						
5	1.4	1.2	3.0	1.0	3.8	14						
6	1.2	1.1	2.8	1.0	3.2	12						
7	1.2	1.1	2.8	1.1	2.9	11						
8	1.1	1.3	2.8	1.0	2.7	10						
9	1.1	1.7	3.0	.97	2.6	9.8						
10	1.1	1.7	3.9	.96	2.5	9.3						
11	1.6	1.3	2.8	.95	10	8.9						
12	1.5	1.1	2.5	.94	32	8.3						
13	1.4	1.0	2.3	.93	23	8.2						
14	1.4	.98	2.1	.92	15	7.6						
15	1.5	.96	2.0	.91	11	7.0						
16	1.4	.90	1.9	.90	9.8	6.9						
17	1.3	.88	1.8	.90	10	6.4						
18	1.8	1.7	1.8	.89	13	5.8						
19	2.0	1.4	1.7	.89	19	5.4						
20	1.8	1.2	1.7	.88	135	5.2						
21	1.7	1.1	1.6	.88	77	5.0						
22	1.7	1.1	1.6	.87	53	4.9						
23	1.6	1.0	1.5	.86	179	5.1						
24	3.0	12	1.5	.86	139	5.1						
25	12	5.6	1.4	.86	75	4.8						
26	2.2	2.6	1.4	.92	51	4.6						
27	1.0	1.7	1.3	.96	39	4.9						
28	.95	2.3	1.3	.98	31	4.4						
29	.88	2.1	1.2	.96	---	4.3						
30	.83	1.7	1.5	.92	---	6.1						
31	.87	---	1.3	.88	---	5.5						
TOTAL	55.03	55.12	69.5	29.59	960.86	269.5						
MEAN	1.78	1.84	2.24	.95	34.3	8.69						
MAX	12	12	6.3	1.2	179	25						
MIN	.83	.88	1.2	.86	.86	4.3						
CFSM	.36	.37	.45	.19	6.96	1.76						
IN.	.42	.42	.52	.22	7.25	2.03						

CAL YR 1980 TOTAL 2534.33 MEAN 6.92 MAX 104 MIN .83 CFSM 1.40 IN 19.12

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA
(National stream-quality accounting network station)

LOCATION.--Lat 40°58'05", long 76°52'25", Union County, Hydrologic Unit 02050206, at downstream side of left abutment of Market Street bridge at Lewisburg, 0.2 mi (0.3 km) downstream from Buffalo Creek, and 7.4 mi (11.9 km), upstream from mouth.

DRAINAGE AREA.--6,847 mi² (17,734 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302. September 1913 to August 1923 (gage heights only) are contained in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 428.20 ft (130.515 m) National Geodetic Vertical Datum of 1929. Sept. 21, 1913 to Aug. 31, 1923, and Dec. 7, 1939 to July 2, 1940, nonrecording gage at same site and datum. Since Oct. 1, 1942, water-stage recorder for Susquehanna River at Sunbury (station 01553990) used as an auxiliary gage for this station.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Flow slightly regulated by 6 flood-control reservoirs, which have a combined capacity of 440,200 acre-ft (543 hm³).

AVERAGE DISCHARGE.--42 years, 10,820 ft³/s (306.4 m³/s), 21.46 in/yr (545 mm/yr), adjusted 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 300,000 ft³/s (8,500 m³/s) June 24, 1972; maximum gage height, 34.23 ft (10.433 m) June 24, 1972, from floodmarks (backwater from Susquehanna River); minimum 390 ft³/s (11.0 m³/s) Nov. 16, 1964; gage height, 0.57 ft (0.174 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1936 reached a stage of 32.1 ft (9.78 m), from floodmarks, backwater from Susquehanna River; discharge, 287,000 ft³/s (8,130 m³/s), from slope-area measurement at Watsontown, 8.0 mi (12.9 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 123,000 ft³/s (3,480 m³/s) Feb. 24; gage height, 18.83 ft (5.739 m), (backwater from Susquehanna River); minimum observed, 968 ft³/s (27.4 m³/s) Oct. 22, gage height, 0.98 ft (0.299 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	2810	7120	2300	1700	34300	7680	50300	4620	6940	6330	1460
2	1260	2430	6480	2200	1900	26900	9150	38000	4510	6790	5240	1630
3	1200	2120	6780	2100	3400	23300	10400	28300	4780	7760	4400	1810
4	1100	2020	9830	2000	5400	20400	10400	22000	6440	7950	4070	2450
5	1100	1970	11300	1900	4900	18200	10400	18200	8920	7680	3930	3140
6	1100	1950	10000	1900	4700	15800	10200	15400	10600	8160	3580	3320
7	1130	1910	8580	1800	4200	13000	9530	13800	9150	8340	3360	4570
8	1170	1770	7640	1800	4400	10900	8700	12100	7540	7420	3170	4540
9	1150	1750	7120	1700	5000	10000	8140	10100	6850	6390	3450	4760
10	1100	1950	7430	1700	5200	9220	7750	8500	12200	5620	3870	5760
11	1080	2390	8180	1650	16000	8620	7710	8640	15700	5010	3500	5570
12	1080	2740	8880	1600	48000	8360	7710	14000	12200	4410	3300	4830
13	1130	3030	8510	1600	27400	7890	8250	36300	9490	4040	3040	4100
14	1170	2930	7930	1600	24000	7540	10700	30400	8810	3900	2870	3550
15	1180	2710	7010	1600	20500	7320	17900	24000	13700	3550	2710	3420
16	1130	2460	6270	1600	17400	7080	23300	28700	21800	3340	2540	3260
17	1170	2410	5570	1650	16000	6880	22800	27000	20100	3100	2360	3070
18	1200	2810	5000	1700	16700	6510	20500	21400	16600	2880	2290	2850
19	1150	2670	4500	1700	30100	6210	18300	17400	14100	2740	2210	2870
20	1150	2550	4000	1650	66500	6050	15800	12700	15600	2880	2100	2660
21	1050	2620	3600	1650	111000	6080	14000	10700	13900	4070	1970	2520
22	984	2810	2900	1650	91300	5850	12500	9250	12200	8570	1890	2400
23	1020	2670	2300	1650	81000	5630	11500	8060	13300	10700	2000	2330
24	1030	3060	2000	1650	89000	5440	11700	7180	13300	7300	2330	2280
25	1340	4800	1800	1650	73000	5290	12700	6470	11400	5690	1760	2160
26	2910	5320	1700	1700	61000	5200	12800	5900	10800	4990	1590	2080
27	6270	7680	1600	1800	51900	5170	12000	5570	11400	6430	1550	1960
28	7460	8000	1700	1700	42800	5070	11200	5250	11900	6320	1520	1890
29	5350	8030	2000	1700	---	5200	13500	5060	9690	6110	1450	1810
30	4030	7750	2600	1700	---	5570	43300	5060	8050	6900	1430	1700
31	4060	---	2500	1700	---	6270	---	4930	---	8000	1450	---
TOTAL	58544	100120	172830	54300	924400	315250	400520	510670	339650	183980	87260	90750
MEAN	1889	3337	5575	1752	33010	10170	13350	16470	11320	5935	2815	3025
MAX	7460	8030	11300	2300	111000	34300	43300	50300	21800	10700	6330	5760
MIN	984	1750	1600	1600	1700	5070	7680	4930	4510	2740	1430	1460
CFSM	.28	.49	.81	.26	4.82	1.49	1.95	2.41	1.65	.87	.41	.44
IN.	.32	.54	.94	.30	5.02	1.71	2.18	2.77	1.85	1.00	.47	.49

CAL YR 1980 TOTAL 3027514 MEAN 8272 MAX 67300 MIN 984 CFSM 1.21 IN 16.45
WTR YR 1981 TOTAL 3238274 MEAN 8872 MAX 111000 MIN 984 CFSM 1.30 IN 17.59

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1944 to June 1953, February 1956 to September 1958, May 1960 to current year.

REMARKS.--Unpublished miscellaneous samples of sediment data for water years 1962-63 available at Harrisburg office.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 02...	0950	1260	406	7.8	19.0	1.4	9.0	47	K4	160	140	41
NOV 05...	0930	1970	322	7.5	9.0	.40	10.8	700	840	110	86	27
DEC 03...	1055	6520	222	8.3	3.5	.90	12.8	77	96	98	66	25
JAN 13...	1220	4090	321	7.5	.5	.50	12.6	K3	<4	120	97	29
FEB 11...	1115	18900	187	8.0	2.0	12	13.6	800	K11000	58	41	16
MAR 04...	0930	20600	145	7.3	3.5	.80	12.8	--	--	53	--	13
APR 02...	1040	9070	220	7.0	12.0	5.5	9.8	K2	84	78	62	20
MAY 07...	0930	14000	273	7.8	13.0	.70	10.0	K13	K8	47	41	12
JUN 03...	1100	4650	190	7.2	18.5	.65	8.8	37	--	80	64	20
JUL 08...	1120	7530	196	7.7	28.0	1.6	9.0	51	140	71	54	19
AUG 05...	1030	3900	235	8.0	24.5	1.5	8.2	14	1220	88	63	23
SEP 02...	1730	1690	308	7.9	23.5	.60	8.0	170	270	130	71	33

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT 02...	15	11	13	.4	2.1	21	140	15	.2	1.3	271	241
NOV 05...	9.9	11	18	.5	2.2	22	96	11	<.1	3.4	193	177
DEC 03...	8.7	7.4	14	.3	1.7	32	54	12	.1	4.0	149	137
JAN 13...	11	8.0	13	.3	2.0	21	91	12	.1	1.5	192	175
FEB 11...	4.4	6.6	19	.4	3.4	17	38	12	<.1	2.6	117	98
MAR 04...	5.1	3.2	11	.2	1.1	14	43	5.0	<.1	4.9	92	87
APR 02...	6.7	5.1	12	.3	1.4	16	72	8.4	<.1	5.0	134	131
MAY 07...	4.2	2.8	11	.2	1.7	6.0	39	4.7	<.1	4.6	92	75
JUN 03...	7.4	4.4	10	.2	1.3	16	59	5.9	<.1	4.4	144	114
JUL 08...	5.7	3.4	9	.2	1.5	17	46	5.3	<.1	3.9	126	98
AUG 05...	7.5	5.0	11	.2	1.5	25	63	7.3	<.1	3.9	166	130
SEP 02...	11	6.3	10	.2	1.6	57	66	11	.1	3.6	185	172

K=Results based on non-ideal colony count.

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT											
02...	.37	922	.59	.56	.060	.060	.21	.19	.27	.02	.25
NOV											
05...	.26	1030	.75	.75	.070	.070	.23	.11	.30	.12	.18
DEC											
03...	.20	2620	1.2	1.1	.080	.060	.24	.18	.32	.08	.24
JAN											
13...	.26	2120	1.6	1.6	.310	.010	.39	.39	.70	.30	.40
FEB											
11...	.07	5970	1.5	1.1	1.50	.460	9.5	.54	11.0	10	1.0
MAR											
04...	.13	5120	.85	.85	.100	.100	.17	.10	.27	.07	.20
APR											
02...	.18	3280	.61	.59	.220	.120	.53	.41	.75	.22	.53
MAY											
07...	.13	3480	.44	.43	.110	.110	.63	.59	.74	.04	.70
JUN											
03...	.20	1810	.42	.42	.060	.050	.41	.30	.47	.12	.35
JUL											
08...	.17	2560	.48	.50	.010	.040	.42	.26	.43	.13	.30
AUG											
05...	.23	1750	.91	.76	.020	.020	.74	.47	.76	.27	.49
SEP											
02...	.25	844	1.2	1.2	.050	.050	.42	.42	.47	.00	.47

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DISSOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
02...	.86	.81	.050	.030	1.0	--	--	--	5	17	72
NOV											
05...	1.1	.93	.040	.030	2.1	--	--	6500	10	53	56
DEC											
03...	1.5	1.3	.040	.020	2.7	--	--	--	4	70	100
JAN											
13...	2.3	2.0	.040	.030	--	3.8	.5	--	8	88	61
FEB											
11...	13	2.1	.730	.140	5.9	--	--	--	271	13800	95
MAR											
04...	1.1	1.1	<.010	<.010	1.3	--	--	26	19	1060	90
APR											
02...	1.4	1.1	.030	<.010	1.2	--	--	--	24	588	54
MAY											
07...	1.2	1.1	.030	<.010	--	1.3	.5	230	11	416	90
JUN											
03...	.89	.77	.010	.010	3.2	--	--	1500	4	50	70
JUL											
08...	.91	.80	<.010	<.010	--	15	.4	3000	6	122	85
AUG											
05...	1.7	1.3	.090	.090	2.3	--	--	2900	8	84	77
SEP											
02...	1.7	1.7	.070	.050	1.7	--	--	4400	9	41	52

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
JAN											
13...	1220	4090	1	0	1	100	80	20	2	0	2
MAY											
07...	0930	14000	<1	--	<1	100	70	30	2	0	2
JUL											
08...	1120	7530	7	5	2	100	70	30	1	--	<1
SEP											
02...	1730	1690	3	1	2	100	0	100	1	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JAN										
13...	20	10	10	9	0	9	5	--	<1	120
MAY										
07...	10	--	<10	7	0	7	9	0	9	470
JUL										
08...	10	0	10	7	3	4	12	2	10	140
SEP										
02...	20	10	10	3	--	<1	15	5	10	360

DATE	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
JAN										
13...	20	100	46	41	5	750	460	290	.1	.1
MAY										
07...	--	<10	7	--	<1	410	0	410	--	.3
JUL										
08...	--	<10	7	6	1	470	0	480	.2	<.1
SEP										
02...	350	10	6	5	1	150	130	20	<.1	<.1

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN										
13...	22	0	22	<1	<1	<1	<1	100	50	50
MAY										
07...	18	4	14	<1	<1	<1	<1	70	0	70
JUL										
08...	15	0	15	<1	<1	<1	<1	20	10	9
SEP										
02...	39	31	8	<1	<1	<1	<1	30	20	10

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

PESTICIDE ANALYSIS, MAY TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
MAY 1980											
07...	1030	12700	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
06...	1000	3180	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
MAY 1980											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 5,80	MAR 4,81	MAY 7,81	JUN 3,81
TIME	0930	0930	0930	1100
TOTAL CELLS/ML	6500	26	230	1500
DIVERSITY: DIVISION	0.3	1.0	0.0	1.0
.CLASS	0.3	1.0	0.0	1.0
..ORDER	0.4	1.0	1.0	1.3
...FAMILY	0.4	1.0	1.8	1.5
....GENUS	0.5	1.0	2.2	1.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	52	4
...OOCYSTACEAE								
....ANKISTRODESMUS	*	0	--	-	--	-	52	4
....DICTYOSPHAERIUM	*	0	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	210	3	--	-	--	-	--	-
....SCENEDESMUS	52	1	--	-	--	-	64	4
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	--	-	26	2
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	26	11	90	6
....MELOSIRA	*	0	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	90#	39	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	*	0	--	-	--	-	13	1
....COCCONEIS	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	13	6	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	--	-	64#	28	--	-
...NAVICULACEAE								
....NAVICULA	*	0	--	-	26	11	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	13#	50	13	6	26	2
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	13#	50	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	*	0	--	-	--	-	26	2
..HORMOGONALES								
...OSCILLATORIACEAE								
....LYNGBYA	6100#	94	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	1100#	76
....PHORMIDIUM	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUL 8,81	AUG 5,81	SEP 2,81
TIME	1120	1030	1730
TOTAL CELLS/ML	3000	2900	4400
DIVERSITY: DIVISION	1.2	0.8	1.4
.CLASS	1.2	0.8	1.4
..ORDER	1.5	1.3	1.6
...FAMILY	1.7	2.5	1.9
....GENUS	2.6	2.8	2.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	*	0	*	0	--	-
...COELASTRACEAE						
....COELASTRUM	370	12	830#	28	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	26	1	150	5	110	3
....DICTYOSPHAERIUM	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	28	1	170	4
....TETRAEDRON	--	-	--	-	56	1
...SCENEDESMACEAE						
....CRUCIGENIA	--	-	170	6	110	3
....SCENEDESMUS	--	-	1000#	35	840#	19
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	52	2	190	7	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....COSMARIUM	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	41	1	84	2
....MELOSIRA	--	-	190	7	200	4
....STEPHANODISCUS	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	39	1	55	2	--	-
....COCCONEIS	--	-	--	-	28	1
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
...FRAGILARIACEAE						
....SYNEDRA	440	15	55	2	--	-
...NAVICULACEAE						
....NAVICULA	--	-	69	2	170	4
...NITZSCHIACEAE						
....NITZSCHIA	26	1	41	1	200	4
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	120	4	55	2	2400#	55
..HORMOGONALES						
...OSCILLATORIACEAE						
....LYNGBYA	880#	29	--	-	--	-
....OSCILLATORIA	280	9	--	-	--	-
....PHORMIDIUM	770#	26	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01553700 CHILLISQUAQUE CREEK AT WASHINGTONVILLE, PA

LOCATION.--Lat 41°03'40", long 76°40'50", Montour County, Hydrologic Unit 02050206, on left bank, 60 ft (18 m) upstream of bridge on State Highway 54, 0.7 mi (1.1 km) north of U.S. Post Office in Washingtonville.

DRAINAGE AREA.--134 mi^2 (347 km^2).

PERIOD OF RECORD.--May 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 503.70 ft (153.528 m) National Geodetic Vertical Datum of 1929, Pennsylvania Power and Light Co. benchmark.

REMARKS.--Records good. Flow includes diversion from West Branch Susquehanna River. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,810 ft^3/s (79.6 m^3/s) Feb. 11, 1981, gage height, 9.63 ft (2.935 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s) minimum discharge, 12 ft^3/s (0.34 m^3/s) Sept. 30, Oct. 1, 1980, gage height, 0.77 ft (0.235 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1645	*2,810	79.6	*9.63	2.935	Feb. 23	2300	1,300	36.8	6.43	1.960
Feb. 21	0130	1,220	34.6	6.21	1.893						

Minimum discharge, 12 ft^3/s (0.34 m^3/s) Oct. 1, gage height, 0.77 ft (0.235 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	21	42	28	27	74	31	111	28	27	30	21
2	15	21	40	29	65	65	32	86	37	47	28	22
3	16	22	66	28	83	57	30	68	40	40	26	23
4	16	22	47	28	68	52	30	59	50	44	26	23
5	15	22	42	27	55	53	37	52	37	55	25	23
6	15	21	39	26	46	51	41	49	32	88	24	23
7	15	22	39	28	43	49	36	45	31	48	22	23
8	15	27	36	27	41	48	36	41	29	40	24	42
9	15	30	35	26	38	46	37	41	41	35	25	39
10	15	29	44	26	35	41	38	40	36	30	24	27
11	16	28	41	26	1440	39	36	81	34	28	24	25
12	14	27	38	26	601	41	43	289	31	27	26	26
13	15	24	36	26	178	39	48	146	28	32	25	25
14	15	25	33	26	113	36	119	100	68	36	25	25
15	15	25	33	27	88	34	145	85	465	29	25	26
16	15	24	35	28	90	35	105	82	149	26	26	26
17	15	24	34	28	125	32	85	58	74	26	24	26
18	16	28	33	28	203	30	76	51	54	24	24	26
19	17	26	33	28	244	30	60	48	45	23	24	26
20	17	24	30	28	729	31	54	44	52	47	23	26
21	17	13	29	28	693	31	48	41	47	180	21	25
22	17	29	29	28	267	31	45	38	58	157	21	26
23	18	26	29	28	387	28	56	34	44	64	20	26
24	18	79	30	28	596	27	78	31	37	44	18	25
25	33	105	30	28	218	26	60	31	35	38	17	25
26	24	72	29	28	136	26	54	31	38	84	16	25
27	18	50	28	28	100	26	52	30	32	229	17	25
28	18	59	29	28	83	25	54	30	30	81	21	25
29	17	60	29	28	---	25	155	31	29	61	23	24
30	20	47	29	28	---	27	145	30	28	44	22	24
31	21	---	29	27	---	32	---	30	---	35	21	---
TOTAL	525	1032	1096	851	6792	1187	1866	1933	1739	1769	717	773
MEAN	16.9	34.4	35.4	27.5	243	38.3	62.2	62.4	58.0	57.1	23.1	25.8
MAX	33	105	66	29	1440	74	155	289	465	229	30	42
MIN	12	13	28	26	27	25	30	30	28	23	16	21
CFSM	.13	.26	.26	.21	1.81	.29	.46	.47	.43	.43	.17	.19
IN.	.15	.29	.30	.24	1.89	.33	.52	.54	.48	.49	.20	.21

CAL YR 1980 TOTAL 20385 MEAN 55.7 MAX 1080 MIN 12 CFSM .42 IN 5.66
WTR YR 1981 TOTAL 20280 MEAN 55.6 MAX 1440 MIN 12 CFSM .42 IN 5.63

LAKES AND RESERVOIR IN WEST BRANCH SUSQUEHANNA RIVER BASIN

01541180 CURWENSVILLE LAKE.--Lat 40°57'13", long 78°31'40", Clearfield County, Hydrologic Unit 02050201, at Curwensville Dam on West Branch Susquehanna River, 0.7 mi (1.1 km) upstream from State Highway 453, 1.2 mi (1.9 km) south of Curwensville and 2.5 mi (4.0 km) upstream from Anderson Creek. DRAINAGE AREA, 365 mi^2 (945 km^2). PERIOD OF RECORD, November 1965 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by earthfill dam with excavated chute spillway with concrete control sill at elevation 1,228.00 ft (374.294 m). Storage began in November 1965. Capacity at elevation 1,228.00 ft (374.294 m) is 124,200 acre-ft (153 hm^3). Conservation pool elevation, 1,155.00 ft (352.044 m) capacity, 4,870 acre-ft (6.00 hm^3). Reservoir is used for flood control, recreation and study of water quality. Figures given herein represent total contents. Flow regulated by three gates and low-flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 87,650 acre-ft (108 hm^3) June 25, 1972 elevation, 1,214.11 ft (370.061 m); minimum, 252 acre-ft (0.311 hm^3) Nov. 6, 1968 elevation, 1,136.70 ft (346.466 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 43,520 acre-ft (53.7 hm^3) Feb. 25, elevation, 1,190.27 ft (362.794 m); minimum, 4,590 acre-ft (5.66 hm^3) Apr. 5, elevation, 1,154.48 ft (351.886 m).

01541340 GLENDALE LAKE.--Lat 40°41'50", long 78°32'15", Cambria County, Hydrologic Unit 02050201, at Glendale Dam on Beaverdam Run, 1 mi (1.6 km) upstream from Dutch Run, 1.3 mi (2.1 km) southwest of Flinton, 1.9 mi (3.1 km) above mouth, and 3.4 mi (5.5 km) south of Coalport. DRAINAGE AREA, 41.9 mi^2 (108.5 km^2). PERIOD OF RECORD, January 1963 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,435.00 ft (437.540 m). Storage began Dec. 1, 1960. Capacity at elevation, 1,435.50 ft (437.540 m) is 41,200 acre-ft (50.8 hm^3) of which 15,900 acre-ft (19.6 hm^3) is controlled storage above elevation 1,427.00 ft (434.950 m) (conservation pool). Dead storage is 25,300 acre-ft (31.2 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Outflow is controlled by 72-inch (183 mm) sluice gate and an 8-inch (20 mm) by-pass valve. Records furnished by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 33,390 acre-ft (41.2 hm^3) June 24, 1972 elevation, 1,431.63 ft (436.361 m); minimum, 10,640 acre-ft (13.1 hm^3) Nov. 16, 1965, elevation, 1,415.53 ft (431.454 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 29,130 acre-ft (35.9 hm^3) Feb. 21, elevation, 1,429.37 ft (435.672 m); minimum, observed 22,330 acre-ft (27.5 hm^3) Mar. 9, elevation, 1,424.95 ft (434.325 m).

01543900 FIRST FORK SINNEMAHONING CREEK RESERVOIR.--Lat 41°24'25", long 78°01'10", Cameron County, Hydrologic Unit 02050202, at control tower of George B. Stevenson Dam, on First Fork Sinnemahoning Creek, 8 mi (13 km) northeast of Sinnemahoning, and 8 mi (13 km) upstream from mouth. DRAINAGE AREA, 243 mi^2 (629 km^2). PERIOD OF RECORD, January 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by an earthfill dam. Storage began Jan. 31, 1956. Capacity, 75,800 acre-ft (93.5 hm^3) between elevations 890.00 ft (271.22 m) (sill of outlet gates) and 1,026.00 ft (312.725 m) (crest of spillway). No dead storage. Ordinary minimum (conservation) pool elevation, 920.00 ft (280.416 m) capacity, 2,000 acre-ft (2.47 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Records furnished by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 62,030 acre-ft (76.5 hm^3) June 26, 1972 elevation, 1,015.87 ft (309.637 m); minimum, (after first filling), 37 acre-ft (45,600 m^3) many days in October 1973 elevation, 891.84 ft (271.833 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 23,650 acre-ft (29.2 hm^3) Feb. 21, elevation, 973,93 ft (296.854 m); minimum, 1,930 acre-ft (2.38 hm^3) Dec. 21, elevation, 919.43 ft (280.242 m).

01544800 KETTLE CREEK LAKE (formerly published as Alvin R. Bush Reservoir).--Lat 41°21'37", long 77°55'27", Clinton County, Hydrologic Unit 02050203, at control tower of dam on Kettle Creek, 1.1 mi (1.8 km) downstream from Sugar Camp Run and 8.5 mi (13.7 km) upstream from mouth and Westport. DRAINAGE AREA, 226 mi^2 (585 km^2). PERIOD OF RECORD, February 1962 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment, rock faced, with ungated concrete spillway at elevation, 937.0 ft (285.60 m). Storage began Feb. 7, 1962; water in reservoir first reached conservation pool elevation in March 1962. Total capacity at elevation, 937.0 ft (285.60 m) is 75,000 acre-ft (92.5 hm^3). No dead storage. Ordinary minimum (conservation) pool elevation, 840.00 ft (256.03 m) capacity, 1,590 acre-ft (1.96 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Storage is regulated by three gates and low-flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 51,660 acre-ft (63.7 hm^3) June 25, 1972 elevation, 919.13 ft (280.151 m); minimum, no storage June 7, 1962.

EXTREMES FOR CURRENT YEAR: Maximum contents, 23,810 acre-ft (29.4 hm^3) Feb. 24, elevation, 889.26 ft (271.046 m); minimum, 1,400 acre-ft (1.73 hm^3) July 27, elevation, 838.61 ft (255.608 m).

01547480 FOSTER JOSEPH SAYERS LAKE.--Lat 41°02'53", long 77°36'35", Centre County, Hydrologic Unit 02050204, at Foster Joseph Sayers Dam, on Bald Eagle Creek, 1 mi (1.6 km) upstream from Marsh Creek, and 1.2 mi (1.9 km) south of Blanchard. DRAINAGE AREA, 339 mi^2 (878 km^2). PERIOD OF RECORD, March 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill dam with ungaged concrete ogee weir at elevation 657.00 ft (200.254 m) with abutting concrete gravity walls and partially paved exit channel. Storage began in March 1971. Capacity at elevation 657.00 ft (200.254 m) is 99,100 acre-ft (122 hm^3). Dead storage is 25 acre-ft (30,800 m^3). Ordinary minimum (conservation) pool elevation, 610.0 ft (185.928 m) capacity, 6,300 acre-ft (7.77 hm^3). Reservoir used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by two gates. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 103,900 acre-ft (128 hm^3) June 25, 1972 elevation, 658.41 ft (200.683 m); minimum, 4,960 acre-ft (6.12 hm^3) Mar. 10, 1971 elevation, 609.37 ft (185.736 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 33,870 acre-ft (41.8 hm^3) Feb. 25, elevation, 632.78 ft (192.871 m); minimum, 6,220 acre-ft (7.67 hm^3) Dec. 16, elevation, 609.86 ft (185.885 m).

Lakes and Reservoir in West Branch Susquehanna River basin-Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01541180 Curwensville Lake			01541340 Glendale Lake		
Sept. 30	1162.29	9780	--	1427.06	25430	--
Oct. 31	1161.81	9400	- 6.2	1427.33	25830	+ 6.5
Nov. 30	1157.20	6160	- 54.4	1427.04	25360	- 7.9
Dec. 31	1155.10	4930	- 20.0	1426.16	24040	- 21.5
CAL YR 1980	--	--	- 0.1	--	--	- 3.0
Jan. 31	1154.94	4840	- 1.5	1426.57	24660	+ 10.1
Feb. 28	1176.15	23890	+343	1426.42	25970	+ 23.6
Mar. 31	1156.00	5430	-300	1426.51	24560	- 22.9
Apr. 30	1159.18	7460	+ 34.1	1427.47	26050	+ 25.0
May 31	1162.30	9790	+ 37.9	1427.41	25960	- 1.5
June 30	1161.82	9400	- 6.6	1427.52	26130	+ 2.9
July 31	1162.11	9630	+ 3.7	1427.24	25680	- 7.3
Aug. 31	1162.28	9770	+ 2.3	1426.80	25000	- 11.1
Sept. 30	1161.99	9530	- 4.0	1426.99	25280	+ 4.7
WTR YR 1981	--	--	- 0.35	--	--	- 0.2
	01543900 P F Sinnemahoning Cr Reservoir			01544800 Kettle Creek		
Sept. 30	920.50	2060	--	840.55	1670	--
Oct. 31	920.54	2060	0.0	840.59	1680	+ 0.2
Nov. 30	920.25	2030	- 0.5	840.30	1640	- 0.7
Dec. 31	920.60	2070	+ 0.6	840.30	1640	0.0
CAL YR 1980	--	--	+ 0.03	--	--	+ 0.04
Jan. 31	920.26	2030	- 0.6	839.97	1580	- 1.0
Feb. 28	922.02	2260	+ 4.1	839.97	1580	0.0
Mar. 31	921.41	2180	- 1.3	840.42	1650	+ 1.1
Apr. 30	931.58	4100	+ 32.3	842.26	1940	+ 4.9
May 31	920.74	2090	- 32.7	840.58	1680	- 4.2
June 30	920.88	2110	+ 0.3	840.68	1690	+ 0.2
July 31	921.20	2150	+ 0.6	840.70	1700	+ 0.2
Aug. 31	921.00	2120	- 0.5	840.61	1680	- 0.3
Sept. 30	920.90	2110	- 0.2	840.98	1740	+ 1.0
WTR YR 1981	--	--	+ 0.07	--	--	+ 0.1
	01547480 Foster Joseph Sayers Lake					
Sept. 30	628.68	26590	--			
Oct. 31	628.35	26060	- 8.6			
Nov. 30	613.70	8920	-288			
Dec. 31	610.06	6340	- 42.0			
CAL YR 1980	--	--	+ 0.15			
Jan. 31	609.95	6270	- 1.1			
Feb. 28	627.17	24260	+324			
Mar. 31	617.84	12600	-190			
Apr. 30	629.87	28580	+269			
May 31	629.71	28310	- 4.4			
June 30	630.08	28940	+ 10.6			
July 31	630.11	29000	+ 1.0			
Aug. 31	629.72	28320	- 11.1			
Sept. 30	628.53	26350	- 33.1			
WTR YR 1981	--		- 0.33			

01554000 SUSQUEHANNA RIVER AT SUNBURY, PA

LOCATION.--Lat 40°50'04", long 76°49'37", Snyder County, Hydrologic Unit 02050301, on right bank at borough of Shamokin Dam, on grounds of Pennsylvania Power and Light Company generating plant, 1 mi (1.6 km) downstream from Shamokin Creek, 1.5 mi (2.4 km) downstream from Sunbury Fabridam, and 1.8 mi (2.9 km) south of Sunbury.

DRAINAGE AREA.--18,300 mi^2 (47,400 km^2), approximately (excluding that of Shamokin Creek).

PERIOD FOR RECORD.--October 1937 to current year. June 1918 to September 1918 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 891: 1936(M). WDR PA-79-2: 1978(M).

GAGE.--Water-stage recorder. Datum of gage is 408.61 ft (124.544 m) National Geodetic Vertical Datum of 1929. See WSP 1903 for history of changes prior to Dec. 13, 1937. Dec. 13, 1937 to Mar. 23, 1967, water-stage recorder at site 1.7 mi (2.7 km) upstream at datum 11.05 ft (3.368 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Flow slightly regulated at low flows by Fabridam upstream, and at high flows by 14 flood-control reservoirs with a combined capacity of about 809,000 acre-ft (997 hm^3).

AVERAGE DISCHARGE.--44 years, 26,544 ft^3/s (751.7 m^3/s), 19.70 in/yr (500 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 620,000 ft^3/s (17,600 m^3/s) June 24, 1972, gage height, 35.80 ft (10.912 m); minimum, 964 ft^3/s (27.3 m^3/s) Oct. 16, 1971, gage height, 4.83 ft (1.472 m), result of shutoff at Sunbury Fabridam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 211,000 ft^3/s (5,980 m^3/s) Feb. 24, gage height, 21.78 ft (6.639 m); minimum, 2,130 ft^3/s (60.3 m^3/s) Oct. 1, gage height, 5.59 ft (1.704 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2390	8050	17400	6100	4400	72600	15500	84300	11300	15500	9620	3350
2	2660	6890	14900	6000	4500	59600	17400	76200	11100	14200	8720	3510
3	2510	5990	16900	5000	7400	53000	20300	57900	12300	15100	8220	3640
4	2630	5520	21300	5300	13500	47100	21500	47000	15800	14700	7520	4050
5	2690	5060	23100	5000	12500	41500	22100	39700	18600	15100	6970	4910
6	2630	4800	24000	4800	11500	36600	22600	33200	20300	15200	6800	5100
7	2540	4580	21600	4600	11000	31800	21400	28900	18900	15700	6430	6230
8	2510	4190	18100	4500	12500	27400	19800	24400	16100	14300	7100	6970
9	2450	4220	16200	4400	13000	24900	18900	20800	14700	13700	7830	7700
10	2420	4300	16300	4400	13000	23600	18500	20000	18500	11600	7480	9620
11	2510	4650	17800	4300	29600	22400	18000	19900	24100	10300	7570	10200
12	2450	4840	21700	4200	142000	21700	18300	26800	19800	9150	7610	10500
13	2480	5290	21700	4100	118000	21100	18600	55900	16700	8310	7100	9730
14	2480	5440	19400	4100	92500	19400	20800	55300	16400	7830	6190	8490
15	2510	5560	16700	4100	72800	19300	29300	49100	25000	7140	5910	7780
16	2510	5630	14400	4100	58200	19000	37200	52900	36100	6680	5710	7390
17	2450	5630	13300	4200	49400	18300	38400	58600	39100	6350	5560	6720
18	2450	6030	12100	4300	48300	18200	36200	54900	38300	5910	5400	6150
19	2360	6070	10800	4300	68300	16400	32900	46700	29200	5560	5360	5990
20	2360	5950	9740	4300	116000	15600	29700	38600	28400	5950	5170	6470
21	2450	5830	7920	4300	187000	15000	27700	31800	27100	7570	4840	6150
22	2510	5870	6100	4300	194000	14100	25300	27000	25500	12100	4550	8450
23	2510	5790	5200	4300	173000	13300	23200	23500	27200	16100	4330	7050
24	2390	6190	4900	4300	201000	12900	23000	20600	30600	11600	4760	5330
25	2780	8810	4500	4400	189000	12300	25000	18400	28300	9250	4050	5210
26	4120	10200	4200	4400	143000	12200	27900	16400	25900	8580	3780	5140
27	6600	14600	4000	4500	112000	12200	29500	14800	23600	13100	3610	7480
28	9300	22000	4500	4400	90000	12100	28500	13900	22000	11200	3450	11700
29	7960	21400	5100	4300	---	11900	29100	13100	19000	10200	3310	10300
30	9350	19900	6600	4300	---	12500	56400	12500	17700	9950	3280	8000
31	9300	---	6300	4200	---	13300	---	12000	---	11600	3350	---
TOTAL	109260	229280	406760	139800	2187400	751300	773000	1095100	677600	339530	181580	209310
MEAN	3525	7643	13120	4510	78120	24240	25770	35330	22590	10950	5857	6977
MAX	9350	22000	24000	6100	201000	72600	56400	84300	39100	16100	9620	11700
MIN	2360	4190	4000	4100	4400	11900	15500	12000	11100	5560	3280	3350
CFSM	.19	.42	.72	.25	4.27	1.33	1.41	1.93	1.23	.60	.32	.38
IN.	.22	.47	.83	.28	4.45	1.53	1.57	2.23	1.38	.69	.37	.43

CAL YR 1980 TOTAL 6870610 MEAN 18770 MAX 154000 MIN 2330 CFSM 1.03 IN 13.97
WTR YR 1981 TOTAL 7099920 MEAN 19450 MAX 201000 MIN 2360 CFSM 1.06 IN 14.43

01554500 SHAMOKIN CREEK NEAR SHAMOKIN, PA

LOCATION.--Lat 40°48'37", long 76°35'04", Northumberland County, Hydrologic Unit 02050301, on right bank at Weigh Scales, 1 mi (1.6 km) downstream from Trout Run, 1.1 mi (1.8 km) upstream from Bennys Run, and 2 mi (3.2 km) northwest of Shamokin.

DRAINAGE AREA.--54.2 mi^2 (140.4 km^2).

PERIOD OF RECORD.--November 1939 to current year. Published as "at Weigh Scales" prior to October 1964.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.28 ft (184.794 m) National Geodetic Vertical Datum of 1929. Nov. 14, 1939 to Jan. 9, 1967, water-stage recorder at site 0.4 mi (0.6 km) upstream at datum 2.00 ft (0.610 m) higher and Jan. 10 to Dec. 10, 1967, nonrecording gage at site 0.4 mi (0.6 km) downstream at datum 11.50 ft (3.505 m) lower.

REMARKS.--Records good. Regulation by mine pumps above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 86.1 ft^3/s (2.438 m^3/s), 21.57 in/yr (548 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,070 ft^3/s (115 m^3/s) June 22, 1972, gage height, 8.72 ft (2.658 m), from rating curve extended above 560 ft^3/s (15.9 m^3/s) on basis of slope-area measurement of peak flow; minimum, 3.2 ft^3/s (0.091 m^3/s) Feb. 15, 1940, gage height, 0.42 ft (0.128 m), at site and datum then in use; minimum daily, 9.8 ft^3/s (0.28 m^3/s) Jan. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 588 ft^3/s (16.6 m^3/s) July 20, gage height 3.79 ft (1.155 m), no peak above base of 700 ft^3/s (19.8 m^3/s) minimum, 20 ft^3/s (0.56 m^3/s) Jan. 21, gage height 2.00 ft (0.610 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	23	26	23	22	135	61	71	63	87	54	36
2	29	23	30	23	87	123	60	70	78	117	53	38
3	28	23	27	23	31	111	57	68	67	87	52	37
4	28	24	25	23	26	103	56	67	64	92	53	35
5	27	23	25	23	25	103	63	66	61	106	50	35
6	27	24	25	23	24	96	56	66	59	109	50	35
7	27	23	25	23	24	90	54	66	57	90	52	34
8	27	24	25	23	24	85	52	64	54	81	88	36
9	27	28	26	22	24	83	54	63	78	80	56	38
10	27	24	25	22	24	81	52	61	64	77	51	33
11	27	23	25	22	153	83	56	83	59	75	74	31
12	27	23	24	22	132	80	85	139	54	74	64	36
13	26	24	26	22	87	78	68	92	53	73	54	30
14	26	23	24	22	78	77	87	87	67	73	51	29
15	26	24	24	23	67	75	78	96	206	68	50	35
16	27	23	24	23	60	74	77	96	120	68	50	36
17	26	24	23	23	59	73	83	90	96	67	48	36
18	28	26	24	23	57	70	83	83	87	67	47	36
19	27	25	24	23	56	70	80	81	81	66	46	38
20	26	26	23	23	90	68	78	80	101	96	45	34
21	26	24	23	23	101	67	77	77	92	77	42	33
22	25	26	23	23	87	67	74	75	117	67	42	35
23	26	24	23	23	218	66	75	73	94	64	41	33
24	25	66	23	23	280	64	75	71	81	63	41	31
25	60	32	23	23	235	63	74	71	98	61	41	31
26	29	27	23	23	202	61	71	70	146	61	39	31
27	26	27	23	23	172	60	67	70	111	61	39	39
28	27	28	23	23	153	59	71	68	106	59	38	32
29	25	26	23	23	---	57	87	68	101	60	39	30
30	25	26	23	23	---	61	75	66	92	56	38	30
31	24	---	23	22	---	61	---	63	---	54	50	---
TOTAL	858	786	753	706	2598	2444	2086	2361	2607	2336	1538	1023
MEAN	27.7	26.2	24.3	22.8	92.8	78.8	69.5	76.2	86.9	75.4	49.6	34.1
MAX	60	66	30	23	280	135	87	139	206	117	88	39
MIN	24	23	23	22	22	57	52	61	53	54	38	29
CFSM	.51	.48	.45	.42	1.71	1.45	1.28	1.41	1.60	1.39	.92	.63
IN.	.59	.54	.52	.48	1.78	1.68	1.43	1.62	1.79	1.60	1.06	.70

CAL YR 1980 TOTAL 23241 MEAN 63.5 MAX 232 MIN 23 CFSM 1.17 IN 15.95
WTR YR 1981 TOTAL 20096 MEAN 55.1 MAX 280 MIN 22 CFSM 1.02 IN 13.79

01555000 PENNS CREEK AT PENNS CREEK, PA

LOCATION.--Lat 40°52'00", long 77°02'55", Union County, Hydrologic Unit 02050301, on left bank 200 ft (61 m) downstream from bridge on State Highway 104, 0.8 mi (1.3 km) northeast of Penns Creek, and 2.9 mi (4.7 km) upstream from Sweitzers Run.

DRAINAGE AREA.--301 mi^2 (789 km^2).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1302. prior to October 1965, published as Penn Creek at Penns Creek.

REVISED RECORDS.--WSP 891: 1934(M). WSP 1502: 1933(M), 1934, 1936(M). WDR PA-72-1: 1933-34(M), 1936(M), 1940(M), 1951(M). WDR PA-79-2: 1978.

GAGE.--Water-stage recorder. Datum of gage is 506.72 ft (154.448 m) National Geodetic Vertical Datum of 1912. Prior to Feb. 1, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years, 436 ft^3/s (12.35 m^3/s), 19.67 in/yr (500 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft^3/s (980 m^3/s) June 23, 1972, gage height, 14.85 ft (4.526 m), from floodmark in gage well, from rating curve extended above 6,800 ft^3/s (193 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 7.0 ft^3/s (0.20 m^3/s) Sept. 27, 1932, gage height 0.85 ft (0.259 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 ft^3/s (87.8 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s	(m^3/s)	(ft)	(m)
Feb. 11	1430	ice jam		a*9.61	2.929	Feb. 24	0630	*7,590	215	b 9.18	2.798
Feb. 20	1230	5,150	146	7.61	2.320	June 20	1100	4,380	124	7.04	2.146

Minimum discharge, 41 ft^3/s (1.16 m^3/s) Nov. 21, gage height 1.26 ft (0.384 m).

a In gage well; 9.20 ft (2.804 m) from floodmark.
b In gage well; 8.88 ft (2.707 m) from outside gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	56	142	76	82	1240	278	514	285	470	181	110
2	48	53	142	76	530	1030	293	533	274	648	173	121
3	50	53	183	76	370	881	286	496	289	667	170	130
4	53	50	186	76	280	750	269	452	425	539	206	152
5	60	52	186	75	240	696	283	428	420	522	233	163
6	59	50	192	75	200	628	310	418	351	543	206	150
7	55	49	155	75	195	560	285	408	320	477	176	128
8	53	50	130	75	190	515	270	375	290	412	173	147
9	53	52	130	75	185	479	268	350	521	373	173	170
10	53	60	150	75	180	453	273	334	591	343	155	135
11	53	62	160	75	2200	440	284	490	455	312	147	112
12	53	57	137	75	1700	427	508	727	376	290	142	103
13	53	53	125	75	986	415	586	591	335	274	145	101
14	50	50	114	75	707	385	745	523	385	259	137	94
15	52	49	110	75	601	352	1140	494	561	243	133	99
16	52	49	105	75	556	350	1000	531	465	233	133	114
17	53	52	100	75	556	330	921	476	391	227	125	112
18	53	59	97	75	606	302	847	426	352	212	116	101
19	56	77	94	75	787	294	716	399	322	200	114	94
20	55	62	91	75	3940	289	638	380	2370	252	110	90
21	56	52	90	75	3480	283	569	356	1470	495	110	88
22	55	70	87	75	2280	272	519	334	1510	319	105	86
23	55	65	85	75	4170	262	505	313	1280	245	103	88
24	55	125	83	76	6700	256	532	295	1010	211	96	84
25	133	336	82	76	3740	249	484	280	896	201	96	79
26	218	272	81	77	2490	238	427	270	1050	202	96	76
27	142	197	80	78	1850	236	390	280	790	309	94	76
28	88	178	79	79	1480	236	385	281	660	280	90	74
29	74	173	78	79	---	222	592	377	571	247	90	72
30	63	163	78	80	---	241	592	352	513	225	88	70
31	59	---	77	81	---	302	---	305	---	199	101	---
TOTAL	2060	2726	3629	2355	41281	13613	15195	12788	19528	10429	4217	3219
MEAN	66.5	90.9	117	76.0	1474	439	507	413	651	336	136	107
MAX	218	336	192	81	6700	1240	1140	727	2370	667	233	170
MIN	48	49	77	75	82	222	268	270	274	199	88	70
CFSM	.22	.30	.39	.25	4.90	1.46	1.68	1.37	2.16	1.12	.45	.36
IN.	.25	.34	.45	.29	5.10	1.68	1.88	1.58	2.41	1.29	.52	.40

CAL YR 1980 TOTAL 127912 MEAN 349 MAX 3880 MIN 48 CFSM 1.16 IN 15.81
WTR YR 1981 TOTAL 131040 MEAN 359 MAX 6700 MIN 48 CFSM 1.19 IN 16.19

01555500 EAST MAHANTANGO CREEK NEAR DALMATIA, PA

LOCATION.--Lat 40°36'40", long 76°54'44", Northumberland County, Hydrologic Unit 02050301, on right bank at highway bridge, 2 mi (3.2 km) upstream from mouth, and 3.2 mi (5.1 km) south of Dalmatia.

DRAINAGE AREA.--162 mi^2 (420 km^2).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1945 published as Mahantango Creek East near Dalmatia.

REVISED RECORDS.--WSP 891: 1933(M). WSP 1302: 1930(M), 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 401.22 ft (122.292 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1929 to Feb. 11, 1930, nonrecording gage, and Feb. 12, 1930 to Nov. 18, 1973, recording gage at present site and datum. Nov. 19, 1973 to June 18, 1974, nonrecording gage at site 2 mi (3.2 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years, 224 ft^3/s (6.344 m^3/s), 18.78 in/yr (477 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,900 ft^3/s (1,980 m^3/s) June 22, 1972, gage height, 26.62 ft (8.114 m), from floodmark in gage shelter, from rating curve extended above 5,100 ft^3/s (144 m^3/s), on basis of slope-area measurement of peak flow; minimum, 1.3 ft^3/s (0.037 m^3/s) Oct. 7, 1957, Nov. 3, 1964; minimum gage height, 0.84 ft (0.256 m) Sept. 21, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,900 ft^3/s (53.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 2	-	-	-	ice	jam	Feb. 24	0515	5,120	145	8.86	2.700
Feb. 11	0830	*7,150	202	*10.57	3.222						

Minimum discharge, 9.4 ft^3/s (0.27 m^3/s) Oct. 1, 2, gage height 1.05 ft (0.320 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	14	42	11	24	433	89	132	75	76	30	45
2	9.7	13	39	11	90	362	87	130	87	149	29	44
3	11	13	50	11	52	308	87	118	96	208	28	35
4	11	13	57	10	43	253	76	111	90	143	27	32
5	10	12	58	10	40	242	81	107	80	202	29	27
6	11	12	70	10	38	224	102	107	70	183	27	24
7	12	13	45	10	37	194	90	102	64	153	27	23
8	10	13	39	10	41	178	85	94	58	127	37	20
9	10	13	37	9.9	45	167	85	89	62	107	52	25
10	10	16	37	9.9	49	158	89	85	76	95	39	29
11	10	17	33	9.9	5280	153	89	115	70	83	36	24
12	10	15	30	9.9	2500	153	122	656	58	73	70	18
13	10	13	27	9.8	851	142	145	492	51	67	52	20
14	10	12	23	9.8	555	132	178	386	70	62	39	17
15	10	12	21	9.8	374	122	286	334	158	56	32	21
16	10	12	19	10	303	125	246	326	235	52	31	25
17	10	16	18	10	261	115	238	257	145	50	30	32
18	10	22	17	11	238	107	227	213	111	47	25	28
19	10	34	16	11	238	109	194	190	90	43	22	25
20	10	30	15	12	725	105	172	172	120	44	21	32
21	11	25	14	12	1300	102	155	155	118	98	19	25
22	11	22	14	12	926	94	142	142	118	75	18	22
23	10	22	13	13	1550	90	139	127	110	54	18	19
24	10	48	13	14	3930	89	181	115	82	43	17	20
25	20	253	13	15	1590	85	167	107	123	44	17	18
26	81	111	12	16	976	81	137	98	324	44	17	15
27	50	73	12	17	685	80	120	102	172	45	18	16
28	28	64	12	18	526	76	115	94	121	40	16	17
29	19	57	12	19	---	73	142	100	97	38	15	17
30	17	50	12	21	---	80	150	90	83	38	15	14
31	15	---	11	22	---	96	---	83	---	31	18	---
TOTAL	476.4	1040	831	385.0	23267	4728	4216	5429	3214	2570	871	729
MEAN	15.4	34.7	26.8	12.4	831	153	141	175	107	82.9	28.1	24.3
MAX	81	253	70	22	5280	433	286	656	324	208	70	45
MIN	9.7	12	11	9.8	24	73	76	83	51	31	15	14
CFSM	.10	.21	.17	.08	5.13	.94	.87	1.08	.66	.51	.17	.15
IN.	.11	.24	.19	.09	5.34	1.09	.97	1.25	.74	.59	.20	.17

CAL YR 1980 TOTAL 51918.4 MEAN 142 MAX 2710 MIN 9.4 CFSM .88 IN 11.92
WTR YR 1981 TOTAL 47756.4 MEAN 131 MAX 5280 MIN 9.7 CFSM .81 IN 10.97

01556000 FRANKSTOWN BRANCH JUNIATA RIVER AT WILLIAMSBURG, PA

LOCATION.--Lat 40°27'47", long 78°12'00", Blair County, Hydrologic Unit 02050302, on left bank 10 ft (3 m) downstream from highway bridge at Williamsburg, 2.5 mi (4.0 km) upstream from Clover Creek.

DRAINAGE AREA.--291 mi^2 (754 km^2).

PERIOD OF RECORD.--October 1916 to current year. Monthly figures only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WDR PA-71-1: 1954(M), 1960(M), 1961(M), 1977(M).

GAGE.--Water-stage recorder. Datum of gage is 831.78 ft (253.527 m) Penn Central Railroad datum. Prior to Aug. 14,1928, nonrecording gage at same site and datum.

REMARKS.--Records good. Some regulation at low flow by mill above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--65 years, 394 ft^3/s (11.16 m^3/s), 18.39 in/yr (467 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s (850 m^3/s), Mar. 18, 1936, gage height, 18.58 ft (5.663 m), from floodmark in gage shelter, from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurement of peak flow; minimum, 13 ft^3/s (0.37 m^3/s) July 24, 1934, gage height, 0.97 ft (0.296 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 19.1 ft (5.82 m) June 1, 1889, from floodmark, discharge about 35,500 ft^3/s (1,010 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,600 ft^3/s (130 m^3/s) Feb. 20, gage height, 9.88 ft (3.011 m); minimum 49 ft^3/s (1.39 m^3/s) Jan. 31, gage height, 2.00 ft (0.610 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	90	211	113	92	654	345	313	251	167	113	139
2	79	82	232	110	1130	537	374	304	239	183	107	114
3	81	82	333	106	411	419	330	276	461	234	103	188
4	86	82	260	81	239	365	317	262	768	211	93	266
5	82	82	234	86	190	374	310	248	506	192	88	222
6	79	81	215	92	178	362	291	249	420	182	85	137
7	81	81	206	103	204	329	259	239	368	164	83	114
8	79	85	204	97	203	300	242	214	298	151	80	123
9	79	108	215	86	162	294	237	204	334	142	78	148
10	78	153	443	90	154	329	234	198	335	135	76	111
11	74	106	302	85	1910	341	238	1190	328	126	75	96
12	74	97	271	79	753	323	793	1590	257	122	74	85
13	72	92	255	80	434	330	2190	913	257	120	73	82
14	73	88	222	83	382	335	2320	690	823	119	73	80
15	73	90	194	86	332	350	1830	689	605	113	75	106
16	73	92	202	88	307	370	1220	627	429	109	104	317
17	73	85	184	88	367	400	1000	486	377	106	90	160
18	75	114	171	86	498	360	773	421	319	101	80	121
19	81	129	167	85	715	310	598	427	269	98	69	110
20	73	111	113	86	3270	282	517	344	260	175	68	101
21	73	108	104	90	3560	289	435	299	239	202	67	88
22	73	114	121	92	2090	268	388	266	275	130	65	88
23	72	127	135	91	1980	260	401	239	233	113	63	90
24	71	575	140	90	2110	251	451	219	196	107	62	83
25	404	680	118	88	1390	242	393	205	258	108	64	81
26	320	361	95	93	997	234	336	235	375	117	63	77
27	142	271	117	121	722	256	321	383	226	274	62	76
28	114	288	111	127	725	324	325	268	198	150	61	73
29	108	263	117	118	---	279	361	447	184	234	60	71
30	103	234	123	100	---	327	354	337	174	153	62	73
31	97	---	120	87	---	366	---	318	---	123	188	---
TOTAL	3120	4951	5935	2907	25505	10460	18183	13100	10262	4661	2504	3620
MEAN	101	165	191	93.8	911	337	606	423	342	150	80.8	121
MAX	404	680	443	127	3560	654	2320	1590	823	274	188	317
MIN	71	81	95	79	92	234	234	198	174	98	60	71
CFSM	.35	.57	.66	.32	3.13	1.16	2.08	1.45	1.18	.52	.28	.42
IN.	.40	.63	.76	.37	3.26	1.34	2.32	1.67	1.31	.60	.32	.46

CAL YR 1980 TOTAL 134766 MEAN 368 MAX 3480 MIN 71 CFSM 1.27 IN 17.23
WTR YR 1981 TOTAL 105208 MEAN 288 MAX 3560 MIN 60 CFSM .99 IN 13.45

01557500 BALD EAGLE CREEK AT TYRONE, PA

LOCATION.--Lat 40°41'01", long 78°14'02", Blair County, Hydrologic Unit 02050302, on left bank, 0.2 mi (0.3 km) upstream from plant of West Virginia Pulp and Paper Co. at Tyrone, 0.2 mi (0.3 km) upstream from Laurel Run, and 1.3 mi (2.1 km) upstream from mouth.

DRAINAGE AREA.--44.1 mi^2 (114.2 km^2)

PERIOD OF RECORD.--October 1944 to current year. Prior to October 1967, published as South Bald Eagle Creek at Tyrone.

REVISED RECORDS.--WSP 1903: 1954(M). WDR PA-75-2: 1974.

GAGE.--Water-stage recorder. Datum of gage is 921.80 ft (280.965 m) National Geodetic Vertical Datum of 1929. Oct 1, 1944 to Nov. 15, 1950, water-stage recorder, and Nov. 16, 1950 to Nov. 30, 1952, nonrecording gage at site 0.5 mi (0.8 km) downstream at datum 17.99 ft (5.483 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Prior to Nov. 30, 1952 daily discharges were affected by diversion by West Virginia Pulp and Paper Co. Daily discharges subsequent to Nov. 30, 1952 are not affected by diversion. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 76.6 ft^3/s (2.169 m^3/s), 23.59 in/yr (599 mm/yr), adjusted for diversion from October 1950 to November 1952.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,140 ft^3/s (146 m^3/s) Nov. 25, 1950, gage height, 7.5 ft (2.29 m), from floodmarks, at site and datum then in use, from rating curve extended above 2,100 ft^3/s (59.5 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 1.4 ft^3/s (0.040 m3/s) Sept. 12, 13, 1973; minimum gage height, 0.07 ft (0.021 m) Oct. 30, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 15 ft (4.6 m) Mar. 17 or 18, 1936, site and datum in use prior to Dec. 1, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 940 ft^3/s (26.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)	Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Feb. 20	0715	*1,750	49.6	*4.14	1.262	May 11	2045	1,200	34.0	3.47	1.058
Feb. 23	1815	1,290	36.5	3.59	1.094	July 20	1845	1,380	39.1	3.71	1.131

Minimum discharge, 4.0 ft^3/s (0.11 m^3/s) Oct. 1, 9-11, 19, 20, gage height, 0.11 ft (0.034 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	6.1	29	13	11	134	52	104	36	45	45	18
2	4.4	6.1	40	12	40	110	57	93	40	50	42	21
3	4.7	5.8	49	12	30	92	56	79	135	63	38	27
4	4.7	6.5	44	12	22	78	57	70	183	52	36	37
5	4.7	6.1	46	11	19	76	60	65	95	56	33	30
6	4.4	6.1	42	11	18	70	57	63	77	60	30	22
7	4.4	6.1	31	11	17	62	52	57	64	56	30	37
8	4.4	7.2	32	11	16	58	49	52	57	49	28	109
9	4.4	12	43	11	16	57	48	48	67	44	26	91
10	4.0	16	61	11	15	56	46	46	55	37	24	62
11	4.7	8.5	45	10	200	56	48	541	50	35	23	49
12	4.4	7.2	42	10	170	54	86	680	44	33	23	41
13	4.7	7.2	41	10	140	53	215	335	43	31	21	36
14	4.7	7.2	38	10	120	50	307	223	68	30	21	34
15	4.7	6.5	35	10	110	48	301	183	101	28	21	43
16	4.7	6.1	33	10	110	54	215	142	63	28	21	42
17	4.4	6.0	30	10	130	50	174	109	58	26	18	33
18	4.7	9.4	28	10	230	56	141	91	50	24	18	30
19	4.7	8.0	26	10	420	51	108	78	46	23	17	28
20	4.7	8.0	24	10	1280	45	91	71	45	342	16	28
21	4.7	8.0	22	11	906	45	76	63	45	358	16	26
22	5.1	8.5	21	11	529	43	68	60	89	133	16	25
23	5.1	9.4	20	11	744	42	83	54	67	77	15	25
24	5.4	83	19	11	719	40	80	51	56	61	16	23
25	48	68	18	12	405	38	69	50	72	52	15	22
26	36	42	17	12	264	37	62	48	78	80	14	21
27	11	30	16	12	190	40	60	44	67	87	14	21
28	7.5	34	15	11	160	37	61	43	60	68	14	20
29	7.2	33	14	11	---	36	125	45	51	78	13	19
30	6.1	27	13	11	---	45	108	41	49	61	16	19
31	6.1	---	13	11	---	48	---	45	---	52	28	---
TOTAL	233.1	495.0	947	339	7031	1761	3012	3674	2011	2219	708	1039
MEAN	7.52	16.5	30.5	10.9	251	56.8	100	119	67.0	71.6	22.8	34.6
MAX	48	83	61	13	1280	134	307	680	183	358	45	109
MIN	4.0	5.8	13	10	11	36	46	41	36	23	13	18
CFSM	.17	.37	.69	.25	5.69	1.29	2.27	2.70	1.52	1.62	.52	.79
IN.	.20	.42	.80	.29	5.93	1.49	2.54	3.10	1.70	1.87	.60	.88

CAL YR 1980 TOTAL 20511.4 MEAN 56.0 MAX 555 MIN 4.0 CFSM 1.27 IN 17.30
WTR YR 1981 TOTAL 23469.1 MEAN 64.3 MAX 1280 MIN 4.0 CFSM 1.46 IN 19.80

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA

LOCATION.--Lat 40°36'45", long 78°08'27", Huntingdon County, Hydrologic Unit 02050302, on right bank 150 ft (46 m) downstream from Penn Central Railroad bridge, 0.5 mi (0.8 km) northwest of village at Spruce Creek, and 0.5 mi (0.8 km) upstream from Spruce Creek.

DRAINAGE AREA.--220 mi^2 (570 km^2).

PERIOD OF RECORD.--June 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 751.15 ft (228.951 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 375 ft^3/s (10.62 m^3/s), 23.15 in/yr (588 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft^3/s (810 m^3/s) June 23, 1972, gage height, 16.98 ft (5.176 m), from rating curve extended above 5,600 ft^3/s (159 m^3/s) on basis of slope-area measurement of peak flow; minimum, 45 ft^3/s (1.27 m^3/s) Sept. 26, 1943, Oct. 4, 1949; minimum gage height, 1.41 ft (0.430 m) Sept. 26, 1943.

EXTREMES FOR OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 19.1 ft (5.82 m), from floodmarks 175 ft (53 m) downstream, discharge, 39,800 ft^3/s (1,130 m^3/s) from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	0930	*5,760	163	*7.52	2.292	May 12	0030	3,550	101	5.97	1.820
Feb. 23	2000	4,300	122	6.53	1.990						

Minimum discharge, 86 ft^3/s (2.44 m^3/s) Oct. 12, 13, 15, 17, 22, gage height 1.80 ft (0.549 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	109	250	137	113	754	288	425	183	230	293	111
2	91	107	312	134	448	648	367	413	189	255	264	109
3	91	107	454	127	274	568	334	379	362	334	237	142
4	91	107	362	116	196	510	340	351	725	274	226	207
5	91	107	323	116	168	497	345	329	448	312	200	174
6	89	107	293	122	157	467	329	318	390	318	183	122
7	91	107	283	130	157	419	293	302	340	264	174	109
8	89	111	283	122	163	373	278	269	288	237	168	250
9	89	163	318	116	149	351	269	250	345	218	157	283
10	89	193	516	116	142	356	255	241	288	200	144	183
11	89	134	396	111	1360	362	274	1410	269	183	139	154
12	87	122	367	109	669	340	523	2370	230	171	134	137
13	87	116	351	107	442	329	1210	1380	214	163	130	130
14	87	116	307	109	390	318	1390	984	307	160	127	120
15	87	111	264	111	362	298	1270	851	497	144	120	144
16	89	111	269	111	351	334	1000	725	323	139	127	207
17	87	111	241	111	467	323	859	587	302	137	116	154
18	89	122	222	109	740	293	733	510	264	127	109	130
19	91	120	214	109	1100	288	601	460	241	122	105	122
20	89	116	160	111	4140	278	542	419	241	120	103	122
21	89	113	160	111	4000	278	467	379	230	936	99	118
22	89	118	160	113	2370	259	425	340	367	510	99	118
23	89	127	171	111	2630	250	460	302	356	351	99	120
24	89	555	174	109	2710	241	485	278	283	283	99	111
25	379	628	147	109	1820	237	413	259	323	255	99	109
26	373	407	134	113	1310	264	367	250	431	307	97	105
27	163	307	149	134	1010	288	351	237	340	497	97	105
28	137	329	144	134	866	237	345	226	302	340	97	105
29	125	307	149	127	---	230	467	269	274	497	97	105
30	116	264	152	111	---	269	454	218	250	390	99	103
31	111	---	142	109	---	293	---	218	---	340	177	---
TOTAL	3544	5552	7867	3615	28704	10952	15734	15949	9602	8814	4415	4209
MEAN	114	185	254	117	1025	353	524	514	320	284	142	140
MAX	379	628	516	137	4140	754	1390	2370	725	936	293	283
MIN	87	107	134	107	113	230	255	218	183	120	97	103
CFSM	.52	.84	1.16	.53	4.66	1.61	2.38	2.34	1.46	1.29	.65	.64
IN.	.60	.94	1.33	.61	4.85	1.85	2.66	2.70	1.62	1.49	.75	.71

CAL YR 1980 TOTAL 123829 MEAN 338 MAX 3000 MIN 87 CFSM 1.54 IN 20.94
WTR YR 1981 TOTAL 118957 MEAN 326 MAX 4140 MIN 87 CFSM 1.48 IN 20.11

01559000 JUNIATA RIVER AT HUNTINGDON, PA

LOCATION.--Lat 40°29'05", long 78°01'09", Huntingdon County, Hydrologic Unit 02050302, on right bank 170 ft (52 m) downstream from Smithfield Bridge at Huntingdon, and 0.8 mi (1.3 km) upstream from Standing Stone Creek.

DRAINAGE AREA.--816 mi^2 (2,113 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1941 to current year. Gage-height records collected in this vicinity for the period May 1895 to December 1938 are contained in reports of U.S. Weather Bureau. Prior to October 1950 published as Frankstown Branch Juniata River at Huntingdon.

REVISED RECORDS.--WDR PA-73-1: 1936(M). WDR PA-80-2: 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 599.69 ft (182.786 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 1,089 ft^3/s (30.84 m^3/s), 18.12 in/yr (460 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,400 ft^3/s (1,430 m^3/s), June 23, 1972, gage height, 20.03 ft (6.105 m), on basis of computation of peak flow over dam; minimum recorded 14 ft^3/s (0.40 m^3/s) Feb. 8, 1948, Aug. 2, 1954; minimum gage height recorded, 0.27 ft (0.082 m) Feb. 8, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 21.87 ft (6.666 m), from floodmark, discharge uncertain.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,500 ft^3/s (156 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1515	6,560	186	6.36	1.938	Apr. 14	2100	5,670	161	5.85	1.783
Feb. 20	1600	*9,900	280	*8.06	2.457	May 12	0115	6,350	180	6.24	1.902
Feb. 24	0130	9,610	272	7.92	2.414						

Minimum discharge, 236 ft^3/s (6.68 m^3/s) Aug. 30, gage height, 1.18 ft (0.360 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	322	659	290	311	1980	817	997	666	582	603	453
2	280	311	695	280	1490	1690	946	972	609	616	562	423
3	285	306	905	280	1420	1430	872	897	703	793	529	423
4	295	311	825	230	732	1250	848	840	2000	717	516	638
5	300	311	747	240	609	1210	848	801	1320	786	496	732
6	280	300	688	250	562	1180	832	778	1080	825	453	516
7	280	300	659	260	535	1080	770	770	972	666	435	399
8	280	311	652	240	548	989	725	703	825	596	429	459
9	275	339	652	240	568	930	703	659	832	548	405	623
10	275	529	1070	230	441	955	695	638	881	509	383	509
11	280	405	921	220	4300	963	681	1970	848	471	366	423
12	269	350	817	210	2530	955	1260	5120	703	453	361	377
13	260	333	770	200	1310	913	3750	3090	652	429	339	361
14	260	322	710	200	1100	889	4390	2300	1130	423	333	339
15	260	317	630	210	955	848	4390	2000	1830	394	333	366
16	265	322	630	210	872	864	3100	1990	1230	383	350	596
17	265	328	603	210	963	913	2510	1550	1030	377	361	589
18	269	372	555	220	1330	832	2150	1320	897	361	317	435
19	275	394	548	240	2030	832	1720	1210	786	344	295	383
20	275	372	459	260	7430	801	1500	1090	763	555	285	361
21	260	344	340	280	8720	786	1300	972	725	1630	275	344
22	260	350	350	300	5690	763	1160	872	817	930	275	339
23	260	383	360	310	5690	725	1160	793	921	688	265	350
24	255	809	370	300	7530	710	1310	725	717	589	265	322
25	509	2050	310	300	4580	688	1150	681	695	555	265	300
26	1270	1160	260	300	3310	695	1010	666	1150	555	265	295
27	568	832	280	344	2510	710	946	825	840	1010	260	290
28	423	809	290	383	2150	747	913	717	725	740	250	280
29	377	817	300	366	---	717	1090	848	659	930	245	280
30	355	717	310	333	---	740	1110	848	616	809	245	269
31	339	---	300	280	---	889	---	747	---	681	453	---
TOTAL	10384	15126	17665	8216	70216	29674	44656	38389	27622	19945	11214	12474
MEAN	335	504	570	265	2508	957	1489	1238	921	643	362	416
MAX	1270	2050	1070	383	8720	1980	4390	5120	2000	1630	603	732
MIN	255	300	260	200	311	688	681	638	609	344	245	269
CFSM	.41	.62	.70	.33	3.07	1.17	1.83	1.52	1.13	.79	.44	.51
IN.	.47	.69	.81	.37	3.20	1.35	2.04	1.75	1.26	.91	.51	.57

CAL YR 1980 TOTAL 380728 MEAN 1040 MAX 8380 MIN 255 CFSM 1.28 IN 17.36
WTR YR 1981 TOTAL 305581 MEAN 837 MAX 8720 MIN 200 CFSM 1.03 IN 13.93

BEST DOCUMENT AVAILABLE

01559000 JUNIATA RIVER AT HUNTINGDON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 9148-51, 1956, 1963-78.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1980 to September 1981.

INSTRUMENTATION: Temperature recorder since Nov. 21, 1980.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.0°C July 11, 13, 1981; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.0°C July 11, 13; minimum, 0.0°C on many days during winter period.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	5.5	4.0	4.5	1.0	.5	.5
2				---	---	---	7.5	4.5	6.0	.5	.0	.5
3				---	---	---	7.0	3.5	5.5	.5	.0	.0
4				---	---	---	4.5	2.0	2.5	.0	.0	.0
5				---	---	---	5.0	.5	3.5	.0	.0	.0
6				---	---	---	5.0	2.5	4.5	.0	.0	.0
7				---	---	---	5.5	4.0	5.0	.5	.0	.0
8				---	---	---	8.0	5.0	6.5	.5	.0	.0
9				---	---	---	10.5	7.5	8.5	1.5	.0	.5
10				---	---	---	9.0	7.0	8.5	.0	.0	.0
11				---	---	---	7.0	5.5	6.5	.0	.0	.0
12				---	---	---	6.5	4.0	5.0	1.5	.0	.5
13				---	---	---	5.0	4.0	4.5	1.5	.0	.5
14				---	---	---	4.5	3.0	4.0	.5	.0	.0
15				---	---	---	3.0	2.0	2.5	.5	.0	.0
16				---	---	---	2.0	2.0	2.0	.5	.0	.0
17				---	---	---	2.0	1.5	2.0	.5	.0	.0
18				---	---	---	2.5	2.0	2.0	.5	.0	.5
19				---	---	---	2.0	1.5	2.0	1.0	.0	.5
20				---	---	---	2.0	.5	1.5	1.0	.0	.5
21				---	---	---	1.0	.0	.5	1.0	.5	.5
22				4.5	3.5	4.0	.5	.0	.0	1.5	.5	1.0
23				4.5	3.5	4.0	2.0	.0	.5	1.5	.5	1.0
24				6.5	4.5	5.0	2.0	.0	.5	1.5	.5	1.0
25				5.5	5.0	5.0	1.5	.0	.5	2.5	.5	1.0
26				5.0	4.0	5.0	.0	.0	.0	2.5	.0	1.5
27				6.0	4.0	5.0	.0	.0	.0	2.5	1.0	2.0
28				6.0	5.5	5.5	.0	.0	.0	2.0	.5	1.5
29				6.0	5.5	5.5	.5	.0	.0	2.5	1.5	2.5
30				6.5	5.5	6.0	1.0	.0	.5	3.0	1.5	2.0
31				---	---	---	1.0	.0	.5	2.5	.0	1.5
MONTH				6.5	3.5	5.0	10.5	.0	3.0	3.0	.0	.5

BEST DOCUMENT AVAILABLE

01559000 JUNIATA RIVER AT HUNTINGDON, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.0	1.0	7.0	5.5	6.0	14.5	12.5	13.5	14.5	12.5	14.0
2	1.0	.0	1.0	7.0	5.0	6.5	13.5	10.5	12.5	14.0	12.5	13.0
3	.5	.0	.5	6.5	3.0	5.0	14.5	10.5	12.5	15.5	11.0	13.5
4	1.0	.0	.5	5.0	2.5	4.0	16.0	13.0	14.5	17.0	11.5	14.5
5	1.5	.0	1.0	3.5	3.0	3.0	16.5	15.0	15.5	17.5	14.5	16.0
6	1.0	.0	.5	6.0	3.5	4.0	14.5	12.0	13.5	16.5	12.5	15.0
7	2.0	.0	1.0	5.0	2.5	4.0	13.5	11.0	12.0	13.5	11.5	12.5
8	1.0	.0	1.0	5.0	2.5	4.0	14.5	11.0	12.5	14.5	10.5	12.5
9	2.0	.0	1.0	6.5	3.0	5.0	15.5	12.5	14.0	15.5	9.5	13.0
10	1.5	.0	1.0	5.5	4.0	5.0	16.0	13.0	14.0	16.0	12.5	14.5
11	2.5	.0	1.5	5.5	5.0	5.5	16.0	11.5	14.0	16.5	13.0	15.0
12	2.0	.0	1.0	6.0	3.0	4.5	15.5	12.5	14.0	15.0	10.0	12.5
13	1.5	.0	1.0	5.5	3.0	4.5	14.0	10.0	12.0	13.0	9.0	11.5
14	2.0	.0	1.0	6.5	2.0	5.0	11.5	9.0	10.5	15.5	11.0	13.0
15	3.0	.0	1.5	6.0	2.0	3.5	11.5	8.5	10.0	15.5	13.0	15.0
16	4.5	.0	2.0	7.0	3.5	6.0	12.5	8.5	10.5	14.5	11.5	13.5
17	6.0	2.5	4.5	5.5	1.5	4.0	13.0	10.0	11.5	14.0	11.5	12.5
18	7.0	4.0	6.0	4.0	1.5	3.0	16.0	11.0	13.5	14.5	12.0	13.5
19	7.0	4.0	5.5	4.0	2.0	3.0	16.0	13.0	14.5	14.0	11.0	13.0
20	6.5	2.5	4.0	4.5	2.5	3.5	14.5	12.0	13.5	14.5	11.0	13.0
21	6.5	3.5	4.5	6.0	3.0	4.5	14.0	10.5	12.0	16.5	13.0	15.0
22	7.5	5.0	6.0	7.5	4.0	6.0	13.0	11.0	12.0	18.0	14.5	16.0
23	8.0	5.0	6.5	9.5	5.0	6.5	13.5	11.0	12.5	20.0	16.0	17.5
24	7.0	4.5	5.5	9.0	6.5	7.5	13.0	11.0	12.0	20.5	16.5	18.5
25	6.5	4.5	5.5	9.0	6.5	7.5	12.5	9.0	10.5	21.0	17.0	19.0
26	6.5	4.0	5.0	9.0	6.5	8.0	12.5	9.0	10.5	21.0	18.5	19.5
27	7.0	4.0	5.5	9.5	7.5	8.5	16.0	10.5	14.0	20.5	16.5	19.5
28	7.0	5.0	5.5	11.0	8.0	9.0	17.0	12.5	16.0	20.5	19.0	19.5
29	---	---	---	12.5	8.5	10.5	17.0	16.0	16.5	20.0	17.5	19.0
30	---	---	---	12.0	10.0	11.0	16.0	13.5	15.5	21.0	18.5	19.5
31	---	---	---	13.5	9.5	11.5	---	---	---	21.0	19.0	20.0
MONTH	8.0	.0	3.0	13.5	1.5	6.0	17.0	8.5	13.0	21.0	9.0	15.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.0	17.5	19.0	24.5	20.0	21.5	23.0	19.5	21.0	21.0	18.0	20.0
2	18.5	17.5	18.0	22.5	19.5	20.5	25.0	19.5	22.5	20.5	18.0	18.5
3	17.5	15.0	17.0	22.5	19.0	19.5	24.5	21.5	23.0	20.5	17.5	18.0
4	18.0	14.5	16.5	22.5	18.5	20.0	25.0	21.5	23.0	20.0	17.0	18.0
5	20.0	17.0	18.5	20.5	18.5	19.5	24.0	21.0	21.5	20.0	17.0	18.0
6	21.0	17.5	20.0	23.5	19.0	20.0	24.0	20.0	22.0	21.0	17.0	18.5
7	21.5	19.5	20.5	24.0	19.5	21.5	24.0	20.0	21.5	21.5	17.0	19.5
8	21.5	20.0	20.5	24.5	21.0	23.0	23.0	20.5	22.0	21.0	18.0	20.5
9	22.0	19.0	20.5	26.0	22.5	23.5	24.5	20.5	22.0	20.5	16.0	18.5
10	21.5	20.0	21.0	26.5	24.0	25.0	24.5	22.5	24.0	20.0	15.0	18.0
11	21.0	17.0	20.0	27.0	23.5	25.5	25.5	23.0	24.0	20.5	15.5	17.5
12	23.0	19.5	21.0	26.5	23.5	25.0	24.5	22.5	23.5	21.5	18.5	20.0
13	23.5	19.0	21.5	27.0	24.0	25.5	23.5	21.5	22.5	22.0	18.5	21.0
14	23.0	19.5	21.5	26.5	23.5	25.0	23.5	21.0	22.5	22.5	17.5	19.5
15	23.0	20.5	22.5	26.0	21.5	24.0	22.5	21.0	22.0	19.0	18.0	18.5
16	25.0	21.0	23.0	24.0	21.5	22.5	23.0	21.0	22.0	20.5	16.0	17.5
17	24.5	21.0	24.0	24.0	20.5	22.0	22.5	19.5	21.5	19.5	16.0	17.0
18	24.0	20.5	23.0	25.0	20.5	22.5	22.5	19.5	21.0	19.0	15.5	17.0
19	24.5	21.0	23.0	25.5	22.5	24.5	21.5	17.5	20.0	17.0	14.0	14.5
20	23.5	22.0	23.0	26.0	23.0	24.5	21.5	17.0	19.0	17.0	14.0	15.5
21	23.5	21.0	22.5	25.0	21.5	22.5	22.0	17.5	21.0	15.5	12.5	14.5
22	23.0	19.5	21.5	23.5	21.0	22.5	22.0	19.5	21.0	15.5	12.5	13.5
23	22.5	19.0	21.0	23.0	19.5	21.5	22.0	18.5	20.5	15.0	11.5	13.5
24	23.5	18.5	22.0	21.0	19.0	20.0	21.5	20.0	20.5	15.0	10.5	12.5
25	23.0	19.5	21.0	20.5	19.0	19.5	21.5	17.5	20.5	15.5	10.5	13.0
26	21.5	17.5	19.0	20.5	18.0	19.0	21.5	19.0	20.5	16.5	12.5	14.0
27	21.5	17.5	19.0	21.0	18.0	20.0	22.0	17.5	20.5	15.0	13.0	14.0
28	23.0	17.0	19.5	22.0	21.0	21.0	22.5	20.0	21.5	17.0	13.0	14.5
29	23.0	17.5	19.5	21.5	19.0	20.5	23.5	20.0	22.0	15.5	12.0	13.5
30	24.5	19.0	21.0	22.5	18.0	19.5	23.0	21.0	22.0	15.0	12.0	14.0
31	---	---	---	21.0	17.0	19.5	22.0	19.0	20.5	---	---	---
MONTH	25.0	14.5	20.5	27.0	17.0	22.0	25.5	17.0	21.5	22.5	10.5	17.0

BEST DOCUMENT AVAILABLE

01560000 DUNNING CREEK AT BELDEN, PA

LOCATION.--Lat 40°04'18", long 78°29'34", Bedford County, Hydrologic Unit 02050303, on left bank 10 ft (3 m) upstream from highway bridge, 0.8 mi (1.3 km) southeast of Belden, 3.8 mi (6.1 km) north of Bedford, and 4.3 mi (6.9 km) above mouth.

DRAINAGE AREA.--172 mi^2 (445 km^2).

PERIOD OF RECORD.--May 1939 to current year.

REVISED RECORDS.--WSP 971: 1940(M). WSP 1502: 1940-41. WDR PA-72-1: 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 1,051.16 ft (320.394 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 229 ft^3/s (6.485 m^3/s), 18.08 in/yr (459 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft^3/s (549 m^3/s) July 20, 1977, gage height, 14.15 ft (4.313 m), from rating curve extended above 9,200 ft^3/s (261 m^3/s) on basis of contracted-opening measurement at gage height, 12.67 ft (3.862 m); minimum 2.6 ft^3/s (0.074 m^3/s) Sept. 6, 1964; minimum gage height, 0.92 ft (0.280 m) Jan. 8, 1954, result of freeze-up.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 17.8 ft (5.43 m) Mar. 18, 1936, from floodmarks (backwater from Raystown Branch Juniata River), discharge, about 16,900 ft^3/s (479 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,300 ft^3/s (65.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 21	1130	2,540	71.9	7.18	2.188
Apr. 13	0900	*4,880	138	*9.85	3.002
June 14	2200	2,530	71.6	7.06	2.152

Minimum discharge, 14 ft^3/s (0.396 m^3/s) Aug. 28, 29, 30, gage height, 1.21 ft (0.369 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	31	157	41	66	357	204	174	141	67	36	49
2	17	30	171	41	779	285	188	178	135	89	34	40
3	17	29	232	42	435	246	176	150	167	163	34	63
4	21	28	221	43	387	210	162	132	580	102	33	100
5	21	29	202	44	301	216	154	123	553	91	29	95
6	20	26	179	45	246	204	140	121	397	80	27	53
7	18	25	160	50	174	185	124	116	316	69	27	42
8	18	26	148	46	160	176	111	100	249	60	27	54
9	18	29	160	42	157	179	111	91	288	56	27	74
10	18	32	301	41	157	210	124	86	285	52	25	49
11	17	30	221	40	1060	210	135	420	292	47	24	39
12	17	29	213	39	576	216	1770	1240	233	45	23	34
13	19	28	197	39	458	210	3810	634	348	44	23	28
14	18	24	196	38	402	221	2560	436	1550	44	22	27
15	18	24	132	39	325	218	1750	397	1530	40	22	32
16	18	25	135	39	264	252	968	382	704	37	22	82
17	18	26	116	39	273	249	657	282	436	37	23	62
18	18	54	106	39	383	244	510	230	316	36	22	44
19	19	63	98	39	600	238	356	206	262	34	20	39
20	19	42	58	40	1640	210	309	182	252	40	19	33
21	19	41	55	42	2210	199	265	153	182	51	18	28
22	19	46	52	45	1320	176	215	132	178	41	18	27
23	19	54	50	42	1060	171	212	115	141	34	17	27
24	19	398	48	40	1250	168	259	102	113	32	17	27
25	176	536	47	34	865	162	243	93	110	34	16	26
26	218	332	47	40	596	168	194	100	132	35	16	26
27	88	246	46	62	439	179	197	212	93	50	15	26
28	60	244	45	74	376	202	194	144	82	45	15	27
29	48	207	44	74	---	218	197	249	74	67	14	26
30	40	176	50	72	---	238	197	167	69	50	16	24
31	34	---	46	69	---	232	---	200	---	41	47	---
TOTAL	1106	2910	3933	1420	16959	6649	16492	7347	10208	1713	728	1303
MEAN	35.7	97.0	127	45.8	606	214	550	237	340	55.3	23.5	43.4
MAX	218	536	301	74	2210	357	3810	1240	1550	163	47	100
MIN	17	24	44	34	66	162	111	86	69	32	14	24
CFSM	.21	.56	.74	.27	3.52	1.24	3.20	1.38	1.98	.32	.14	.25
IN.	.24	.63	.85	.31	3.67	1.44	3.57	1.59	2.21	.37	.16	.28

CAL YR 1980 TOTAL 79645 MEAN 218 MAX 3260 MIN 17 CFSM 1.27 IN 17.23
WTR YR 1981 TOTAL 70768 MEAN 194 MAX 3810 MIN 14 CFSM 1.13 IN 15.31

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA

LOCATION.--Lat 40°12'57", long 78°15'56", Bedford County, Hydrologic Unit 02050303, on left bank, 500 ft (152 m) downstream from bridge on State Highway 913, 0.5 mi (0.8 km) west of Saxton, and 1.5 mi (2.4 km) upstream from Shoup Run.

DRAINAGE AREA.--756 mi^2 (1,958 km^2).

PERIOD OF RECORD.--September 1911 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1302: 1912-13(M), 1914-15. WSP 1502: 1934, 1936.

GAGE.--Water-stage recorder. Datum of gage is 795.77 ft (242.551 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1931, nonrecording gage at site 0.8 mi (1.3 km) downstream at datum 4.82 ft (1.469 m) lower.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--70 years, 916 ft^3/s (25.94 m^3/s), 16.45 in/yr (418 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,500 ft^3/s (2,280 m^3/s) Mar. 18, 1936, gage height, 24.54 ft (7.480 m), from floodmark in gage shelter, from rating curve extended above 17,000 ft^3/s (481 m^3/s) on basis of slope-area measurement of peak flow; minimum, 39 ft^3/s (1.10 m^3/s) Sept. 6, 7, 12, 1966, gage height, 0.84 ft (0.256 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889 reached a stage of 23.0 ft (7.01 m) at present site and datum, from floodmarks, discharge about 71,300 ft^3/s (2,200 m^3/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,100 ft^3/s (399 m^3/s) April 13, gage height, 11.03 ft (3.362 m); minimum 94 ft^3/s (2.66 m^3/s) Aug. 29, 30, gage height 1.10 ft (0.335 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	149	413	145	180	1410	643	730	977	318	215	201
2	110	142	426	140	540	1200	614	738	738	324	184	295
3	113	131	406	135	2250	1050	650	722	754	863	171	307
4	116	131	485	135	1500	915	558	592	915	1060	180	406
5	113	128	439	130	1000	779	578	592	1790	779	210	400
6	110	125	426	125	700	855	558	545	1580	635	206	492
7	113	125	400	125	630	746	525	525	1190	518	180	318
8	113	125	413	120	570	635	472	525	941	433	164	380
9	110	131	355	120	500	643	459	479	855	367	160	499
10	106	138	380	120	452	621	505	433	959	324	160	419
11	103	146	578	115	2230	771	492	1400	994	295	156	307
12	103	146	466	115	3290	771	3110	5300	846	262	153	241
13	103	146	439	115	1420	812	12300	3600	698	246	138	201
14	100	135	452	115	1130	706	10700	2420	3140	236	135	180
15	100	125	380	115	872	796	8500	1830	4360	231	135	175
16	98	125	318	115	779	714	5200	2100	2480	220	138	360
17	98	131	312	120	714	796	3520	1500	1540	210	128	270
18	100	180	262	120	746	906	2760	1160	1110	201	122	200
19	103	201	250	120	1060	714	2180	1030	846	188	122	185
20	103	279	240	125	4090	682	1640	889	762	201	116	175
21	103	210	230	125	6100	643	1360	779	872	210	110	165
22	106	184	220	130	4640	674	1090	722	706	193	103	155
23	106	180	210	135	3870	578	1050	606	682	206	100	150
24	106	312	200	135	5230	606	1090	551	578	184	100	145
25	184	1360	190	140	3790	585	1110	505	485	180	103	140
26	538	1130	180	145	2760	518	959	505	492	180	98	140
27	551	682	170	150	1940	621	846	738	393	184	98	135
28	284	614	170	155	1560	505	771	838	433	262	98	135
29	210	518	160	160	---	532	754	1080	361	290	96	130
30	180	472	160	165	---	592	746	1700	330	262	96	145
31	160	---	150	170	---	614	---	1080	---	262	135	---
TOTAL	4653	8601	9880	4080	54543	22990	65740	36214	32807	10324	4310	7451
MEAN	150	287	319	132	1948	742	2191	1168	1094	333	139	248
MAX	551	1360	578	170	6100	1410	12300	5300	4360	1060	215	499
MIN	98	125	150	115	180	505	459	433	330	180	96	130
CFSM	.20	.38	.42	.18	2.58	.98	2.90	1.55	1.45	.44	.18	.33
IN.	.23	.42	.49	.20	2.68	1.13	3.23	1.78	1.61	.51	.21	.37

CAL YR 1980 TOTAL 298508 MEAN 816 MAX 9400 MIN 98 CFSM 1.08 IN 14.69
WTR YR 1981 TOTAL 261593 MEAN 717 MAX 12300 MIN 96 CFSM .95 IN 12.87

LAKE IN JUNIATA RIVER BASIN

01563100 RAYSTOWN LAKE.--Lat 40°26'06", long 78°00'25", Huntingdon County, Hydrologic Unit 02050303, at Raystown Dam on Raystown Branch Juniata River, 3.5 mi (5.6 km) south of Huntingdon and 5.7 mi (9.2 km) upstream from mouth. DRAINAGE AREA, 959 mi^2 (2,484 km^2). PERIOD OF RECORD, October 1972 to current year. GAGE, recording. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir is formed by earthfill dam with a gated spillway in right abutment at elevation, 768.6 ft (234.27 m) and an ungated spillway, separate from embankment, at elevation 812.0 ft (247.50 m). Storage began November 1972. Capacity at elevation 768.6 ft (234.27 m) is 383,500 acre-ft (473 hm^3). Capacity at elevation 812.0 ft (247.50 m) is 762,000 acre-ft (940 hm^3). Conservation pool elevation is 786 ft (240 m). Capacity at elevation 786.0 ft (240 m) is 514,000 acre-ft (634 hm^3). Lake is used for flood control, low-flow augmentation, and recreation. Figures given herein represent total contents. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 589,700 acre-ft (727 hm^3) March 7, 1979 elevation, 794.81 ft (242.258 m); minimum 2,240 acre-ft (2.76 hm^3) March 2, 1973 elevation, 628.80 ft (191.660 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 522,160 acre-ft (644 hm^3) May 12 elevation, 786.96 ft (239.865 m); minimum, 485,530 acre-ft (599 hm^3) Nov. 17, elevation, 782.65 ft (238.552 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01563100	Raystown Lake	
Sept. 30	784.67	502500	--
Oct. 31	783.45	492180	-168
Nov. 30	783.86	495620	+ 57.8
Dec. 31	784.86	504110	+ 138
CAL YR 1980	--	--	- 16.9
Jan. 31	784.50	501050	- 49.8
Feb. 28	786.04	514340	+ 239
Mar. 31	786.42	517570	+ 52.5
Apr. 30	786.33	516800	- 12.9
May 31	786.39	517320	+ 8.5
June 30	786.22	515870	- 24.4
July 31	785.76	511910	- 64.4
Aug. 31	785.12	506340	- 90.6
Sept. 30	785.27	507650	+ 22.0
WTR YR 1981	--	--	+ 7.1

01563200 RAYSTOWN BRANCH JUNIATA RIVER BELOW RAYSTOWN DAM NEAR HUNTINGDON, PA

LOCATION.--Lat 40°25'44", long 77°59'29", Huntingdon County, Hydrologic Unit 02050303, on left bank 1 mi (1.6 km) downstream from Raystown Dam, 4 mi (6.4 km) south of Huntingdon, and 4.7 mi (7.6 km) upstream from mouth.

DRAINAGE AREA.--960 mi² (2,490 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1946 to current year. Published as "near Huntingdon" prior to Oct. 1, 1969.

GAGE.--Water-stage recorder. Datum of gage is 597.36 ft (182.075 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers benchmark). Prior to Oct. 1, 1969, water-stage recorder at site 4.3 mi (6.9 km) upstream at datum 22.72 ft (6.925 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since October 1972 by Raystown Lake (station 01563100) 1 mi (1.6 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 1,142 ft³/s (32.34 m³/s), 16.15 in/yr (410 mm/yr), adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft³/s (694 m³/s) Nov. 25, 1950, gage height, 16.74 ft (5.102 m), site and datum then in use, from rating curve extended above 16,000 ft³/s (453 m³/s) on basis of computation of flow over dam at peak flow, maximum gage height at present site and datum, 18.54 ft (5.651 m) Apr. 3, 1970; minimum, 1.2 ft³/s (0.034 m³/s) June 30, July 20, 1973, gage height, 2.14 ft (0.652 m), when gates in dam at Raystown Lake were closed; minimum daily, 5.0 ft³/s (0.142 m³/s) October 30, 1957, May 18, 1973.

EXTREMES FOR PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 31.0 ft (9.45 m), discharge, 87,000 ft³/s (2,460 m³/s), at previous site and datum, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,000 ft³/s (368 m³/s) Apr. 14, gage height, 13.61 ft (4.148 m); minimum 90 ft³/s (2.55 m³/s) Jan. 7, when gates in dam at Raystown Lake were closed, gage height, 2.83 ft (0.863 m); minimum daily, 199 ft³/s (5.64 m³/s) Aug. 12-24, 26-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	905	215	215	208	1340	706	976	1330	451	286	202
2	215	905	215	215	215	1340	639	976	1180	451	232	202
3	215	575	215	215	208	1340	700	976	855	451	222	275
4	215	265	215	215	208	1020	741	678	1190	1040	212	310
5	215	242	215	215	208	1030	741	555	2250	1020	212	310
6	215	232	215	215	208	1340	747	555	2240	758	208	310
7	337	222	215	205	208	1100	741	555	1590	628	208	310
8	433	222	215	205	208	806	623	555	1160	509	208	310
9	365	225	219	205	208	723	555	555	930	447	208	424
10	212	222	219	205	212	723	555	555	1060	447	208	485
11	212	225	215	205	1210	723	555	788	1150	447	205	387
12	212	222	215	205	2880	723	2680	6620	924	447	199	337
13	212	222	215	205	1970	723	11100	6550	1040	447	199	268
14	212	222	215	205	1200	729	12800	3170	2580	447	199	225
15	212	222	215	205	1100	723	11900	1820	4610	447	199	219
16	212	222	215	205	741	892	7100	2080	4000	447	199	219
17	222	225	215	205	549	982	4290	1930	1790	451	199	219
18	232	248	215	205	905	989	3880	1410	1140	345	199	219
19	232	235	215	205	1280	982	2860	1420	1130	282	199	219
20	232	215	215	208	3880	982	1530	1170	995	265	199	219
21	232	215	215	208	7310	976	1340	824	824	268	199	219
22	225	215	215	208	7250	969	1340	723	824	252	199	219
23	215	215	215	208	4630	969	1340	701	824	212	199	219
24	215	219	215	208	6300	818	1340	534	776	212	199	219
25	219	215	215	208	5970	607	1340	475	565	212	202	329
26	215	215	215	208	3650	534	1090	475	410	215	199	296
27	419	215	215	208	2680	534	976	905	451	215	199	215
28	591	215	215	208	1940	534	976	1280	451	219	199	219
29	770	215	215	208	---	534	969	1570	451	314	199	222
30	911	215	215	208	---	539	976	2560	451	374	202	219
31	911	---	215	208	---	735	---	1340	---	374	202	---
TOTAL	9750	8427	6673	6451	57536	26959	77130	45281	39171	13094	6398	8045
MEAN	315	281	215	208	2055	870	2571	1461	1306	422	206	268
MAX	911	905	219	215	7310	1340	12800	6620	4610	1040	286	485
MIN	212	215	215	205	208	534	555	475	410	212	199	202
MEAN‡	147	339	353	158	2294	922	2558	1470	1282	358	115	290
CFSM‡	.15	.35	.37	.16	2.39	.96	2.66	1.53	1.34	.37	.12	.30
IN.‡	.17	.39	.43	.18	2.49	1.11	2.97	1.76	1.50	.43	.14	.34

CAL YR 1980 TOTAL 373251 MEAN 1020 MAX 9970 MIN 205 MEAN‡ 1003 CFSM‡ 1.04 IN.‡ 14.22
WTR YR 1981 TOTAL 304915 MEAN 835 MAX 12800 MIN 199 MEAN‡ 842 CFSM‡ .88 IN.‡ 11.92

‡ Adjusted for change in contents in Raystown Lake.

01563200 RAYSTOWN BRANCH JUNIATA RIVER BELOW RAYSTOWN DAM NEAR HUNTINGDON, PA.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-50, 1956, 1962-75.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1980 to September 1981.

INSTRUMENTATION.--Temperature recorder since October 23, 1980.

REMARKS.--Published as "near Huntingdon" prior to October 1974. The recorder at this site records temperature of outflow from Raystown Dam. Interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum 27.0°C June 26, August 6, 10, 14, 1981; minimum 1.5°C January 7, 1981.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 27.0°C June 26; August 6, 10, 14; minimum 1.5°C January 7.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	15.0	13.0	14.5	7.0	7.0	7.0	6.5	6.0	6.5
2	---	---	---	15.0	14.5	15.0	7.0	6.0	7.0	7.0	6.0	6.5
3	---	---	---	15.5	15.0	15.0	6.5	5.5	6.0	7.0	5.5	6.5
4	---	---	---	15.0	12.5	14.5	6.5	5.0	5.5	6.0	3.0	4.5
5	---	---	---	14.5	10.0	12.0	6.0	5.0	5.5	3.5	3.0	3.5
6	---	---	---	10.0	8.5	9.5	5.5	5.0	5.0	4.0	3.5	3.5
7	---	---	---	10.5	9.0	9.5	5.5	5.0	5.0	3.5	1.5	2.5
8	---	---	---	11.0	9.0	10.0	7.0	5.0	6.0	3.0	2.0	2.0
9	---	---	---	9.5	7.0	8.0	7.0	6.0	6.5	3.5	2.0	2.5
10	---	---	---	7.0	5.5	6.5	6.5	5.5	6.0	3.0	2.5	3.0
11	---	---	---	6.0	5.0	5.5	6.5	5.5	6.0	3.5	2.5	3.0
12	---	---	---	10.5	5.0	7.0	6.0	5.5	5.5	3.0	2.0	2.5
13	---	---	---	10.5	9.0	9.5	6.5	5.5	6.0	3.0	2.0	2.5
14	---	---	---	10.5	9.0	9.5	6.5	5.5	6.0	3.0	2.5	2.5
15	---	---	---	9.5	9.0	9.0	6.5	5.5	6.5	3.5	3.0	3.0
16	---	---	---	9.5	8.5	9.0	6.5	6.0	6.5	3.5	2.5	3.0
17	---	---	---	8.5	6.5	8.0	7.0	6.0	6.0	3.5	2.5	3.0
18	---	---	---	7.5	5.5	6.5	6.5	6.0	6.5	3.0	2.5	3.0
19	---	---	---	7.0	5.0	5.5	6.5	6.0	6.5	4.0	2.5	3.0
20	---	---	---	6.0	5.0	5.5	7.0	5.5	6.0	4.0	3.5	3.5
21	---	---	---	6.0	5.0	5.5	6.5	6.0	6.0	4.5	3.5	4.0
22	---	---	---	6.0	5.0	5.5	6.5	5.5	6.0	4.5	3.5	4.0
23	17.5	16.5	17.0	5.5	5.0	5.0	6.5	6.0	6.0	4.0	3.5	3.5
24	17.0	16.5	17.0	6.0	5.0	5.5	6.5	5.5	6.0	3.5	3.0	3.5
25	17.0	15.5	16.5	7.5	6.5	7.5	6.5	5.5	6.0	4.5	3.0	3.5
26	15.0	14.0	14.5	8.0	7.5	7.5	6.5	5.5	6.0	4.0	3.5	4.0
27	16.0	14.5	15.0	7.5	7.5	7.5	6.5	5.0	6.0	5.0	3.5	4.0
28	16.0	13.5	15.5	7.5	7.0	7.5	6.0	5.5	5.5	4.0	3.0	3.5
29	15.5	13.0	13.5	7.5	7.0	7.0	6.5	6.0	6.0	4.0	3.0	3.5
30	16.0	12.5	15.0	7.5	7.0	7.0	7.0	6.0	6.5	5.0	3.5	4.0
31	14.0	12.5	13.0	---	---	---	6.5	6.0	6.0	5.0	3.5	4.0
MONTH	17.5	12.5	15.0	15.5	5.0	8.5	7.0	5.0	6.0	7.0	1.5	3.5

01563200 RAYSTOWN BRANCH JUNIATA RIVER BELOW RAYSTOWN DAM NEAR HUNTINGDON, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	3.5	3.5	6.0	5.0	5.5	7.0	6.5	7.0	---	---	---
2	4.5	3.0	4.0	5.5	5.0	5.5	8.0	7.0	7.0	---	---	---
3	4.5	2.5	3.5	---	---	---	8.5	5.0	6.5	---	---	---
4	4.0	3.5	3.5	5.5	3.0	4.0	8.5	5.5	6.0	---	---	---
5	5.0	3.0	4.0	5.0	2.0	3.5	8.5	5.0	6.5	---	---	---
6	5.0	3.5	4.0	5.0	4.5	5.0	7.5	5.0	6.0	---	---	---
7	5.0	3.5	4.0	5.5	4.5	5.0	9.0	5.5	6.5	---	---	---
8	4.5	3.0	3.5	5.5	4.0	4.5	10.0	6.0	8.5	---	---	---
9	5.5	3.0	4.0	5.0	4.0	4.5	10.0	8.5	9.0	---	---	---
10	4.5	3.5	4.0	5.0	4.0	4.5	9.5	8.5	9.0	---	---	---
11	5.0	2.0	4.0	5.0	4.0	4.0	10.5	9.0	9.5	---	---	---
12	4.5	2.0	3.5	5.0	3.5	4.5	10.5	7.0	9.5	---	---	---
13	5.0	4.0	4.5	5.0	4.0	4.5	11.0	6.5	8.0	---	---	---
14	5.0	2.5	3.5	5.0	4.0	4.5	10.5	6.5	8.0	14.5	12.0	13.5
15	3.0	2.5	2.5	5.5	4.0	5.0	11.5	7.0	8.5	14.0	12.5	13.0
16	5.0	2.5	4.0	5.0	4.0	4.5	10.5	7.0	8.5	15.0	12.5	14.0
17	5.0	4.5	5.0	5.0	4.0	4.5	10.5	8.0	9.5	14.5	14.0	14.5
18	5.0	3.5	4.5	5.0	4.0	4.0	11.0	10.0	10.5	14.0	13.0	13.5
19	5.0	2.0	4.5	5.0	4.0	4.5	10.5	8.5	10.0	13.0	13.0	13.0
20	5.0	2.5	4.0	5.0	4.0	4.5	11.0	9.0	10.0	14.0	13.0	13.5
21	5.5	2.5	3.5	5.0	4.0	4.5	---	---	---	14.5	13.0	14.0
22	5.5	3.5	4.5	5.5	4.0	5.0	---	---	---	15.0	13.0	14.5
23	5.5	3.5	4.5	5.0	4.0	5.0	---	---	---	15.5	13.5	14.5
24	5.5	3.0	4.5	5.5	4.0	5.0	---	---	---	14.5	12.0	13.5
25	5.5	3.5	4.5	5.5	4.0	5.0	---	---	---	16.5	12.5	14.0
26	6.0	3.0	4.0	6.0	4.5	5.0	---	---	---	17.5	13.0	14.5
27	5.5	3.5	5.0	5.5	5.0	5.0	---	---	---	17.0	14.5	16.5
28	6.5	3.5	5.5	6.5	4.5	5.5	---	---	---	17.0	15.5	16.0
29	---	---	---	7.0	5.0	6.0	---	---	---	16.0	14.0	15.5
30	---	---	---	6.5	5.5	6.5	---	---	---	16.5	15.5	16.0
31	---	---	---	7.0	6.5	6.5	---	---	---	17.0	13.0	16.0
MONTH	6.5	2.0	4.0	7.0	2.0	5.0	11.5	5.0	8.0	17.5	12.0	14.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	16.5	17.0	25.0	23.5	24.5	21.0	17.5	20.5	21.5	20.0	20.5
2	17.0	14.0	16.5	24.0	15.5	21.5	23.0	19.0	21.0	22.0	19.5	20.5
3	17.5	16.0	17.0	24.0	21.5	22.5	22.0	19.5	21.0	20.5	19.0	19.5
4	20.5	17.5	18.5	23.5	22.0	23.0	23.0	22.0	22.5	19.5	19.0	19.5
5	21.0	19.0	20.5	24.0	20.5	22.5	24.0	22.0	23.0	20.5	19.0	19.5
6	21.0	19.5	20.5	23.5	20.5	22.5	27.0	20.5	24.0	22.0	19.5	20.5
7	21.0	20.5	20.5	24.0	22.5	23.5	26.0	24.5	25.0	22.0	20.0	20.5
8	21.0	17.5	20.0	25.0	20.0	24.0	27.0	24.5	25.5	21.0	20.0	20.5
9	21.5	20.5	21.0	26.0	25.0	25.5	26.5	25.0	26.0	21.0	20.0	20.5
10	---	---	---	26.0	25.0	25.5	27.0	23.5	25.5	21.0	19.5	20.5
11	---	---	---	25.5	24.5	25.0	25.5	23.0	24.0	24.0	20.0	22.0
12	---	---	---	25.5	23.0	24.5	26.0	23.5	24.5	24.0	20.0	22.0
13	---	---	---	26.0	22.5	24.5	26.0	23.0	24.5	24.0	19.5	21.0
14	---	---	---	25.5	24.0	25.0	27.0	23.0	24.5	---	---	---
15	---	---	---	24.5	24.0	24.0	25.5	23.5	24.0	---	---	---
16	---	---	---	24.0	23.5	23.5	26.0	23.0	24.0	---	---	---
17	---	---	---	24.5	23.0	23.5	25.5	22.0	23.5	---	---	---
18	---	---	---	25.5	18.0	24.0	26.5	21.5	23.0	---	---	---
19	---	---	---	26.0	24.5	25.0	24.0	21.5	23.0	---	---	---
20	---	---	---	25.5	22.5	24.5	24.5	21.5	23.0	---	---	---
21	---	---	---	26.5	23.5	25.0	24.5	21.0	22.5	---	---	---
22	---	---	---	26.5	23.0	25.5	26.0	22.0	23.5	---	---	---
23	---	---	---	26.5	24.0	25.5	26.5	21.0	24.0	---	---	---
24	---	---	---	24.5	22.5	24.0	26.0	20.5	23.0	---	---	---
25	24.5	20.0	24.0	24.5	22.0	23.5	22.5	19.5	21.0	---	---	---
26	27.0	24.5	25.5	25.0	23.0	24.5	23.0	19.5	21.0	---	---	---
27	25.0	24.0	24.5	24.5	19.5	22.5	23.0	19.5	21.0	---	---	---
28	25.5	23.5	24.5	22.0	19.5	21.0	23.0	20.0	21.5	---	---	---
29	25.5	24.0	25.0	22.5	20.0	21.5	23.5	20.5	21.5	---	---	---
30	26.5	24.0	25.5	22.5	18.5	20.5	23.0	21.0	21.5	---	---	---
31	---	---	---	22.0	21.0	21.5	23.5	20.5	21.5	---	---	---
MONTH	27.0	14.0	21.5	26.5	15.5	23.5	27.0	17.5	23.0	24.0	19.0	20.5

01563500 JUNIATA RIVER AT MAPLETON DEPOT, PA

LOCATION.--Lat 40°23'32", long 77°56'07", Huntingdon County, Hydrologic Unit 02050304, on right bank 0.25 mi (0.40 km) downstream from Scrub Run, and 0.3 mi (0.5 km) downstream from bridge on State Highway 655 at Mapleton Depot.

DRAINAGE AREA.--2,030 mi^2 (5,258 km^2).

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-73-1: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 557.31 ft (169.868 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since October 1972 by Raystown Lake (station 01563100) 12 mi (19 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 2,498 ft^3/s (70.74 m^3/s), 16.71 in/yr (424 mm/yr), adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft^3/s (3,540 m^3/s) June 23, 1972, gage height, 33.07 ft (10.080 m), from rating curve extended above 39,000 ft^3/s (1,100 m^3/s) on basis of runoff comparison with upstream and downstream stations; minimum, 68 ft^3/s (1.93 m^3/s) Sept. 13, 1964; minimum daily, 101 ft^3/s (2.86 m^3/s) Aug. 21, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 38.2 ft (11.64 m) from floodmark, discharge, 165,000 ft^3/s (4,670 m^3/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,800 ft^3/s (589 m^3/s) Apr. 14, gage height, 13.14 ft (4.005 m); minimum discharge not determined, gage height 2.14 ft (0.652 m) Jan. 4, occurred during period of ice effect; minimum daily 420 ft^3/s (11.9 m^3/s) Jan. 12-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	512	1280	1010	530	530	4070	1850	2370	2360	1330	1040	766
2	514	1270	1010	520	1860	3680	1920	2330	2200	1470	874	692
3	518	1090	1230	510	2320	3360	1880	2230	1930	1690	831	737
4	537	612	1230	460	1110	2850	1900	1930	3640	2070	840	1060
5	543	569	1070	460	916	2640	1900	1640	4050	2370	789	1240
6	521	557	1010	460	898	3010	1900	1610	3950	2250	732	962
7	574	537	992	470	826	2680	1800	1600	2980	1740	703	797
8	751	546	962	460	854	2220	1640	1510	2470	1510	700	813
9	741	584	968	450	790	2020	1500	1440	2080	1310	682	1060
10	511	762	1390	440	703	2040	1490	1410	2300	1250	649	1110
11	505	707	1350	430	5990	2060	1480	2200	2430	1180	620	926
12	498	609	1180	420	7240	2060	3720	12200	1950	1130	598	771
13	492	578	1110	420	4050	2000	15700	10800	1900	1100	582	709
14	482	569	1040	420	2690	1960	18900	6430	4240	1080	570	607
15	485	568	931	420	2370	1890	18500	4260	7220	1040	576	623
16	488	564	933	420	1990	2020	12000	4560	6510	1010	585	825
17	494	579	911	430	1750	2230	7530	4150	3640	1000	600	906
18	521	665	847	440	2400	2120	7140	3100	2530	908	552	714
19	524	700	845	450	3720	2110	5390	2940	2350	759	531	641
20	527	644	730	470	12100	2070	3700	2650	2320	839	517	609
21	508	601	600	490	18900	2050	3160	2130	2010	2220	507	593
22	503	609	610	500	15100	2020	2980	1820	2070	1490	501	584
23	479	645	620	520	12700	1970	2940	1720	2290	1060	491	592
24	476	1040	640	520	18200	1820	3160	1550	1950	906	488	577
25	661	2900	570	520	13000	1560	2940	1380	1750	854	492	617
26	1800	1770	510	520	8430	1430	2560	1360	2120	888	487	682
27	1070	1270	530	560	6120	1440	2270	2030	1770	1400	482	536
28	1110	1200	540	610	5040	1470	2220	2350	1570	1140	477	517
29	1130	1220	550	570	---	1470	2440	2740	1460	1350	471	512
30	1330	1110	560	530	---	1470	2540	4200	1390	1400	468	506
31	1300	---	540	500	---	1820	---	2470	---	1210	620	---
TOTAL	21105	26355	27019	14920	152597	67610	139050	95110	81430	40954	19055	22284
MEAN	681	879	872	481	5450	2181	4635	3068	2714	1321	615	743
MAX	1800	2900	1390	610	18900	4070	18900	12200	7220	2370	1040	1240
MIN	476	537	510	420	530	1430	1480	1360	1390	759	468	506
MEAN‡	513	821	1010	431	5689	2234	4622	3076	2686	1257	524	765
CFSM‡	.25	.40	.50	.21	2.80	1.10	2.28	1.52	1.32	.62	.26	.38
IN.‡	.29	.45	.58	.24	2.92	1.27	2.54	1.75	1.47	.72	.30	.42

CAL YR 1980 TOTAL 872649 MEAN 2384 MAX 20300 MIN 476 MEAN‡ 2367 CFSM‡ 1.17 IN.‡ 15.88
WTR YR 1981 TOTAL 707489 MEAN 1938 MAX 18900 MIN 420 MEAN‡ 1945 CFSM‡ .96 IN.‡ 13.01

‡ Adjusted for change in contents in Raystown Lake.

01564500 AUGHWICK CREEK NEAR THREE SPRINGS, PA

LOCATION.--Lat 40°12'45", long 77°55'32", Huntingdon County, Hydrologic Unit 02050304, on right bank 10 ft (3 m) downstream from bridge on State Highway 994, 300 ft (91 m) upstream from East Broad Top Railroad Bridge, 350 ft (107 m) upstream from Three Springs Creek, and 3.5 mi (5.1 km) northeast of village of Three Springs. Records include flow of Three Springs Creek.

DRAINAGE AREA.--205 mi^2 (531 km^2), includes that of Three Springs Creek.

PERIOD OF RECORD.--May 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 618.65 ft (188.565 m) National Geodetic Vertical Datum of 1929, unadjusted.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 246 ft^3/s (6.967 m^3/s), 16.30 in/yr (414 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft^3/s (671 m^3/s) June 22, 1972, gage height, 19.20 ft (5.852 m), from rating curve extended above 7,100 ft^3/s (201 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 0.8 ft^3/s (0.023 m^3/s) Sept. 2, 3, 4, 11, 12, 13, 1966, gage height, 1.74 ft (0.530 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889 reached a stage of about 19.3 ft (5.880 m), discharge about 24,000 ft^3/s (680 m^3/s), (revised).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,100 ft^3/s (59.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	1130	2,820	79.9	8.93	2.722	Apr. 13	0930	3,490	98.8	9.61	2.929
Feb. 24	0130	*4,410	125	*10.74	3.274	Apr. 14	1730	3,020	85.5	8.98	2.737

Minimum discharge, 6.0 ft^3/s (0.17 m^3/s) Aug. 25, 26, 30, gage height, 2.10 ft (0.640 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	20	84	18	18	386	113	168	123	44	16	31
2	13	20	76	17	533	325	136	197	110	55	14	31
3	15	18	103	16	493	277	123	163	138	202	12	30
4	16	18	96	16	212	234	112	142	202	296	27	30
5	16	18	71	15	130	239	123	132	224	497	25	28
6	15	18	76	14	98	229	130	130	174	288	18	27
7	15	17	73	14	80	202	112	130	146	188	15	20
8	15	17	62	13	68	181	103	113	117	134	18	20
9	15	18	59	13	60	188	106	101	134	98	15	29
10	15	18	83	13	58	234	128	98	217	78	15	29
11	15	20	90	12	1070	260	123	153	202	62	12	19
12	15	20	73	12	859	263	895	415	138	49	11	15
13	13	18	68	12	376	252	2810	352	106	42	10	12
14	12	17	60	12	290	232	2510	305	402	37	9.6	11
15	12	17	43	12	250	207	2020	282	518	33	9.4	16
16	12	18	52	12	212	212	1100	305	322	29	10	38
17	12	19	51	12	193	229	775	242	229	27	9.6	46
18	12	34	44	13	188	184	623	205	168	26	9.0	36
19	18	63	40	13	247	186	476	184	132	24	8.5	25
20	21	48	36	14	1700	172	395	168	161	23	8.1	20
21	22	34	32	14	1210	170	328	149	168	24	7.3	17
22	19	39	29	15	771	151	282	130	140	25	6.9	15
23	20	37	27	15	1900	138	277	115	140	22	6.6	15
24	22	237	26	15	2850	132	322	101	92	18	6.4	12
25	73	547	24	15	1160	121	271	92	74	18	6.2	12
26	190	224	23	16	741	112	224	136	219	19	6.2	11
27	70	140	22	16	544	108	202	288	126	23	6.4	11
28	50	130	21	16	441	103	186	205	83	22	6.2	10
29	43	130	20	16	---	95	181	239	64	25	6.2	9.8
30	38	105	19	15	---	101	181	190	51	26	6.2	9.6
31	27	---	18	15	---	126	---	151	---	21	17	---
TOTAL	863	2079	1601	441	16752	6049	15367	5781	5120	2475	353.8	635.4
MEAN	27.8	69.3	51.6	14.2	598	195	512	186	171	79.8	11.4	21.2
MAX	190	547	103	18	2850	386	2810	415	518	497	27	46
MIN	12	17	18	12	18	95	103	92	51	18	6.2	9.6
CFSM	.14	.34	.25	.07	2.92	.95	2.50	.91	.83	.39	.06	.10
IN.	.16	.38	.29	.08	3.04	1.10	2.79	1.05	.93	.45	.06	.12

CAL YR 1980 TOTAL 74427.0 MEAN 203 MAX 2250 MIN 12 CFSM .99 IN 13.51
WTR YR 1981 TOTAL 57517.2 MEAN 158 MAX 2850 MIN 6.2 CFSM .77 IN 10.44

01565700 LITTLE LOST CREEK AT OAKLAND MILLS, PA

LOCATION.--Lat 40°36'19", long 77°18'42", Juniata County, Hydrologic Unit 02050304, on right bank at bridge on Legislative Route 34007, 0.8 mi (1.3 km) south of Oakland Mills, and 1 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--6.52 mi^2 (16.89 km^2).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1960-63. August 1963 to March 1981. (discontinued) Prior to August 1964, published as "near Oakland Mills".

REVISED RECORDS.--WSP 1903: 1960(M). WSP 2103: 1967-69(P). WDR PA-76-2: 1972(M), 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 551.17 ft (167.997 m) National Geodetic Vertical Datum of 1929. June 8, 1960 to Aug. 7, 1963, crest-stage gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years (water years 1964-80), 7.64 ft^3/s (0.216 m^3/s), 15.91 in/yr (404 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,700 ft^3/s (48.1 m^3/s) Oct. 9, 1976, gage height, 8.83 ft (2.691 m), from rating curve extended above 740 ft^3/s (21.0 m^3/s); minimum, 0.2 ft^3/s (0.006 m^3/s) Nov. 2, 3, 4, 5, 6, 1963, Oct. 4, 1964, Aug. 24, Sept. 2, 1965; minimum gage height, 4.14 ft (1.262 m) July 5, 6, 7, 9, 10, 11, 12, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.83 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	0445	*352	9.97	*7.65	2.332	Feb. 23	2045	302	8.55	7.45	2.271

Minimum daily discharge, 0.42 ft^3/s (0.012 m^3/s) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.92	2.6	.82	.54	8.2						
2	1.1	.84	2.6	.77	10	7.1						
3	1.1	.84	3.3	.72	6.0	6.3						
4	1.5	.92	2.5	.69	3.0	5.8						
5	.84	.84	2.3	.65	1.4	6.0						
6	.84	.70	2.2	.60	1.3	5.8						
7	.77	.70	2.2	.58	1.3	5.5						
8	.64	.84	2.2	.55	1.3	5.3						
9	.58	1.1	2.2	.52	1.2	5.3						
10	.53	1.1	2.7	.49	1.2	5.0						
11	.58	.84	2.3	.47	164	4.8						
12	.53	.70	2.1	.44	77	4.6						
13	.53	.84	2.0	.43	64	4.4						
14	.53	.84	1.8	.42	50	4.2						
15	.58	.70	1.8	.43	20	4.0						
16	.53	.70	1.8	.43	8.0	4.0						
17	.53	1.1	1.7	.43	3.8	3.8						
18	.64	1.4	1.8	.44	3.8	3.6						
19	.64	1.1	1.7	.45	5.1	3.6						
20	.58	1.1	1.5	.46	54	3.3						
21	.58	1.1	1.4	.47	30	3.0						
22	.58	1.3	1.4	.48	15	2.5						
23	.53	1.4	1.5	.49	107	2.5						
24	.58	9.0	1.5	.50	48	2.0						
25	6.0	6.3	1.5	.54	17	2.0						
26	3.3	3.7	1.3	.56	13	1.9						
27	1.6	3.0	1.3	.56	10	1.9						
28	1.3	3.6	1.2	.55	9.3	1.8						
29	1.1	3.3	.92	.54	---	1.7						
30	1.1	2.8	.92	.54	---	3.3						
31	.92	---	.92	.54	---	2.5						
TOTAL	32.36	53.62	57.16	16.56	726.24	125.7						
MEAN	1.04	1.79	1.84	.53	25.9	4.05						
MAX	6.0	9.0	3.3	.82	164	8.2						
MIN	.53	.70	.92	.42	.54	1.7						
CFSM	.16	.28	.28	.08	3.97	.62						
IN.	.18	.31	.33	.09	4.14	.72						

CAL YR 1980 TOTAL 1565.64 MEAN 4.28 MAX 56 MIN .53 CFSM .66 IN 8.93

01567000 JUNIATA RIVER AT NEWPORT, PA
(National stream-quality accounting station)

LOCATION.--Lat 40°28'42", long 77°07'46", Perry County, Hydrologic Unit 02050304, on right bank at downstream side of highway bridge at Newport, 1,000 ft (305 m) upstream from Little Buffalo Creek.

DRAINAGE AREA.--3,354 mi^2 (8,687 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1899 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1902(M). WSP 1302: 1915-17. WSP 1502: 1899-1908, 1914, 1924, 1936. WSP 1722: 1916.

GAGE.--Water-stage recorder. Datum of gage is 363.93 ft (110.926 m) National Geodetic Vertical Datum of 1929. Prior to July 16, 1929, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Flow regulated by Raystown Lake, (station 01563100) about 75 mi (120 km) upstream since October 1972.

AVERAGE DISCHARGE.--82 years, 4,302 ft^3/s (121.8 m^3/s), 17.42 in/yr (442 mm/yr), adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 190,000 ft^3/s (5,380 m^3/s) Mar. 19, 1936, gage height, 34.24 ft (10.436 m), from floodmark in gage shelter, from rating curve extended above 100,000 ft^3/s (2,830 m^3/s); minimum, 195 ft^3/s (5.52 m^3/s) July 27, 1966, gage height, 2.81 ft (0.856 m); minimum daily, 207 ft^3/s (5.86 m^3/s) July 27, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889 reached a stage of 35.9 ft (10.94 m) from floodmarks, discharge, 209,000 ft^3/s (5,920 m^3/s), from rating curve extended above 100,000 ft^3/s (2,830 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41,100 ft^3/s (1,160 m^3/s) Feb. 24, gage height, 15.26 ft (4.651 m); minimum daily discharge, 450 ft^3/s (12.7 m^3/s) Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	693	1630	1950	560	540	7680	2370	3570	3640	2220	1510	804
2	693	1600	1730	540	800	6320	2710	3370	3400	2750	1370	1060
3	693	1580	1710	520	2000	5560	2610	3280	3270	2670	1190	1190
4	693	1560	1750	510	3500	4970	2630	3120	3350	2840	1420	1130
5	705	1210	1950	490	2500	4480	2630	2890	4520	3390	1390	1190
6	705	750	1730	470	2000	4050	2630	2500	4940	4380	1190	1490
7	693	705	1610	470	1900	4170	2640	2430	4830	3770	1090	1440
8	705	717	1560	470	1800	3920	2550	2360	3830	3040	1020	1190
9	681	728	1510	470	1700	3490	2440	2260	3500	2650	1050	1280
10	843	804	1510	470	1600	3200	2210	2130	3040	2230	979	1270
11	894	804	1600	460	3500	3170	2180	2280	3140	1970	937	1370
12	705	993	2130	460	16700	3170	2460	4170	3250	1800	868	1310
13	622	909	1840	450	10100	3180	5080	13800	2820	1650	817	1130
14	618	804	1670	460	5960	3110	20900	11100	3140	1540	804	993
15	592	750	1560	460	4170	3010	25400	7160	6500	1440	791	979
16	613	750	1490	470	3570	2910	22700	5480	9380	1410	791	937
17	618	750	1370	470	3270	2880	15300	5600	7640	1370	777	979
18	622	880	1200	480	2910	3110	10300	5100	4960	1340	764	1210
19	626	951	1100	480	3480	3010	9520	4010	3650	1300	750	1210
20	630	993	1000	480	11200	2970	7400	3770	4720	1220	717	1050
21	630	1080	920	490	26600	2910	5650	3540	4180	1610	693	993
22	630	993	830	500	24400	2850	4720	3020	3900	2270	656	951
23	626	937	780	510	24000	2780	4400	2590	3690	2320	643	923
24	626	1240	740	520	39700	2690	4360	2430	3520	1560	643	791
25	830	2510	690	520	28800	2630	4550	2280	3230	1300	630	777
26	1370	4740	660	520	17600	2340	4320	2050	3720	1190	630	777
27	1950	3390	630	520	12400	2100	3880	2220	3370	1360	630	791
28	2070	2490	610	520	9290	2070	3440	3050	3130	1690	630	843
29	1490	2130	600	530	---	2060	3400	4480	2630	1910	622	717
30	1390	2090	600	540	---	2130	3570	4380	2390	1490	622	681
31	1560	---	590	540	---	2230	---	5200	---	1800	693	---
TOTAL	26816	41468	39620	15350	265990	105150	188950	125620	121280	63480	27317	31456
MEAN	865	1382	1278	495	9500	3392	6298	4052	4043	2048	881	1049
MAX	2070	4740	2130	560	39700	7680	25400	13800	9380	4380	1510	1490
MIN	592	705	590	450	540	2060	2180	2050	2390	1190	622	681
MEAN‡	697	1440	1416	445	9739	3444	6285	4060	4019	1984	790	1071
CFSM‡	.21	.43	.42	.13	2.90	1.03	1.87	1.21	1.20	.59	.24	.32
IN.‡	.24	.48	.48	.15	3.02	1.19	2.09	1.40	1.34	.68	.28	.36

CAL YR 1980 TOTAL 1300283 MEAN 3553 MAX 28000 MIN 590 MEAN‡ 3536 CFSM‡ 1.05 IN.‡ 14.35
WTR YR 1981 TOTAL 1052497 MEAN 2884 MAX 39700 MIN 450 MEAN‡ 2890 CFSM‡ .86 IN.‡ 11.70

‡Adjusted for change in contents in Raystown Lake.

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1944 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to current year.
WATER TEMPERATURES: October 1944 to September 1953, April 1958 to September 1962, October 1964 to current year.
SUSPENDED SEDIMENT DISCHARGE: January 1951 to current year.

REMARKS.--Unpublished records of water temperatures and specific conductance of sediment samples available in the district office at Harrisburg.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 558 micromhos Oct. 27, 1969; minimum daily, 112 micromhos Jan. 25, 1979.
WATER TEMPERATURES: Maximum daily, 31.5°C Aug. 27, 1951, July 21, 1980; minimum daily, freezing point on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,130 mg/L Mar. 2, 1954; minimum daily 0 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 365,000 tons (331,000 tonnes) June 23, 1972; minimum daily, 0 ton (0 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 344 micromhos Oct. 29; minimum daily, 127 micromhos Feb. 24.
WATER TEMPERATURES: Maximum daily, 29.0°C July 10, 11, 12, 13; minimum daily, freezing point many days during Dec., Jan., and Feb. based on unpublished records.
SEDIMENT CONCENTRATIONS: Maximum daily, 312 mg/L Feb. 21; minimum daily, 1 mg/L on many days during October, November, January, March and September.
SEDIMENT LOADS: Maximum daily, 31,100 tons (28,200 tonnes) Feb. 24; minimum daily, 1.4 tons (1.3 tonnes) Jan. 23, 24.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
03...	1010	669	313	8.8	17.0	.60	9.8	K22	82	130	30	34
JAN												
15...	1015	1510	355	8.6	.5	.40	16.6	K3	K6	140	43	39
MAR												
05...	0900	4550	194	7.7	3.0	1.8	12.6	--	96	78	--	21
MAY												
08...	1000	2340	209	8.3	15.5	.90	10.4	K3	31	82	24	23
JUL												
09...	0925	2720	205	8.1	28.0	15	7.6	112	140	82	23	24
SEP												
03...	1430	1210	287	8.1	22.0	6.0	8.0	560	2600	110	23	31

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
03...	11	12	16	.5	2.2	100	30	16	.1	.2	192	169
JAN												
15...	11	14	17	.5	2.7	100	37	21	.1	<.1	202	68
MAR												
05...	6.1	4.4	11	.2	1.4	48	21	7.6	<.1	4.8	110	101
MAY												
08...	6.0	6.2	14	.3	1.4	58	22	11	<.1	.6	125	109
JUL												
09...	5.3	5.7	13	.3	2.2	59	19	9.3	<.1	3.3	129	109
SEP												
03...	8.8	11	17	.5	2.2	91	25	15	<.1	2.8	173	155

K= Results based on non-ideal colony count.

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT 03...	.26	347	.78	.74	.040	.040	.27	.23	.31	.04	.27
JAN 15...	.27	824	1.7	1.7	.050	.000	.37	.14	.42	.28	.14
MAR 05...	.15	1350	1.4	1.4	.030	.020	.25	.15	.28	.11	.17
MAY 08...	.17	790	.78	.78	.050	.040	.60	.42	.65	.19	.46
JUL 09...	.18	947	1.1	1.1	.030	.030	.65	.41	.68	.24	.44
SEP 03...	.24	565	.99	.98	.080	.080	.49	.40	.57	.09	.48

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DISSOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 03...	1.1	1.0	.070	.060	8.7	--	--	--	3	5.4	100
JAN 15...	2.1	1.8	.060	.050	--	2.7	.4	--	7	29	48
MAR 05...	1.7	1.6	.030	.030	1.9	--	--	550	5	61	95
MAY 08...	1.4	1.2	.060	.030	--	13	1.4	8000	11	69	88
JUL 09...	1.8	1.5	.080	<.010	--	1.9	.6	3300	27	198	99
SEP 03...	1.6	1.5	.130	.100	3.9	--	--	8600	20	65	76

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
JAN											
15...	1015	1510	3	0	3	100	60	40	<1	--	<1
MAY											
08...	1000	2340	<1	--	<1	100	60	40	1	--	<1
JUL											
09...	0925	2720	2	0	2	--	--	40	1	0	1
SEP											
03...	1430	1210	2	0	2	100	--	<50	1	--	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JAN										
15...	20	10	10	1	0	1	2	--	<1	50
MAY										
08...	10	--	<10	1	--	<1	5	4	1	260
JUL										
09...	--	--	20	1	0	1	10	4	6	870
SEP										
03...	<10	--	<10	<1	--	<1	12	5	7	480

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
JAN										
15...	--	<10	9	4	5	22	20	2	<.1	<.1
MAY										
08...	240	20	86	--	<1	34	30	4	--	<.1
JUL										
09...	850	20	--	--	1	52	50	2	<.1	<.1
SEP										
03...	460	20	7	5	2	70	60	10	<.1	<.1

DATE	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
JAN										
15...	4	1	3	<1	<1	<1	<1	70	--	<4
MAY										
08...	4	3	1	<1	<1	<1	<1	10	--	<4
JUL										
09...	4	1	3	<1	<1	<1	<1	20	--	<4
SEP										
03...	31	25	6	<1	<1	<1	<1	30	20	10

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FEBRUARY 1981 TO MAY 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
FEB							
21...	1600	29100	5.0	293	23000	49	65
24...	0710	41000	5.5	299	33100	44	61
MAY							
13...	0745	14200	14.0	140	5370	48	61

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
FEB						
21...	79	87	93	96	98	100
24...	77	86	92	96	99	100
MAY						
13...	71	81	90	97	99	100

BEST DOCUMENT AVAILABLE

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	MAR 5,81	MAY 8,81	JUL 9,81	SEP 3,81
TIME	0900	1000	0925	1430
TOTAL CELLS/ML	550	8000	3300	8600
DIVERSITY: DIVISION	0.5	1.0	1.1	1.5
.CLASS	0.5	1.0	1.1	1.6
..ORDER	0.5	1.6	1.9	1.8
...FAMILY	0.6	2.0	2.3	2.3
....GENUS	0.6	2.1	2.3	2.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	430	5
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	25	1	530	6
....DICTYOSPHAERIUM	--	-	--	-	--	-	250	3
....KIRCHNERIELLA	--	-	--	-	--	-	180	2
....OOCYSTIS	--	-	--	-	25	1	180	2
....SELENASTRUM	--	-	*	0	--	-	530	6
....TETRAEDRON	--	-	--	-	--	-	110	1
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	230	3	610#	18	500	6
....TETRASTRUM	--	-	120	1	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	*	0	180	5	320	4
...PHACOTACEAE								
....PTEROMONAS	--	-	--	-	--	-	*	0
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	25	1	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	13	2	620	8	1600#	48	570	7
....MELOSIRA	--	-	--	-	--	-	71	1
....STEPHANODISCUS	--	-	120	1	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	25	1	--	-
....COCCONEIS	13	2	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	*	0
...CYMBELLACEAE								
....CYMBELLA	--	-	*	0	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	4900#	62	--	-	--	-
....FRAGILARIA	--	-	--	-	50	2	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	*	0	--	-	*	0
...NAVICULACEAE								
....NAVICULA	13	2	320	4	76	2	*	0
...NITZSCHIACEAE								
....NITZSCHIA	13	2	210	3	550#	17	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	110	1
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	59	1	25	1	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	25	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	790	10	76	2	4300#	51
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	500#	90	470	6	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	320	4

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	316	258	245		---	166	221	189	174	207	257	279
2	315	241	254		---	172	221	190	184	199	229	291
3	315	251	263		---	180	218	188	183	200	225	298
4	306	247	265		---	184	214	187	184	205	231	291
5	300	---	267		---	186	213	188	186	204	220	299
6	302	258	268		---	190	207	192	198	190	219	296
7	302	279	270		---	194	211	195	168	187	232	295
8	311	269	263		---	195	205	199	170	200	232	287
9	311	276	264		---	200	204	198	175	193	240	291
10	312	293	257		---	212	208	204	183	200	239	289
11	314	297	259		226	214	199	201	191	199	247	279
12	304	312	263		---	210	203	198	196	205	252	271
13	291	316	254		214	208	192	166	189	205	257	273
14	284	319	259		262	210	162	162	218	219	264	255
15	294	326	266		268	208	154	163	219	220	259	251
16	303	327	256		258	209	156	162	225	226	263	262
17	314	317	251		254	210	158	164	228	229	263	266
18	317	294	268		270	208	154	167	223	224	268	265
19	304	300	---		312	205	162	167	222	222	276	265
20	301	297	---		160	206	164	173	181	229	279	262
21	314	289	---		154	204	169	175	187	235	280	273
22	321	292	---		153	204	172	181	190	218	283	284
23	326	300	---		136	208	178	183	186	236	276	293
24	327	297	---		127	207	176	182	187	236	274	272
25	312	300	---		131	208	174	186	193	222	280	278
26	305	285	---		149	213	176	191	179	232	292	278
27	295	279	---		153	218	178	198	181	220	291	277
28	308	270	---		159	218	182	184	190	216	288	278
29	344	239	308		---	224	184	173	197	224	306	284
30	334	237	306		---	221	188	175	214	232	291	280
31	304	---	---		---	220	---	170	---	236	292	---
MEAN	310	285	265		199	204	187	182	193	215	261	279

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	9.0	5.0		---	5.5	14.0	15.0	21.0	24.5	25.5	22.0
2	19.5	8.0	6.0		---	5.5	14.0	13.5	18.5	23.5	27.0	21.5
3	18.5	8.5	3.5		---	5.0	15.0	15.0	18.0	23.5	25.0	21.0
4	16.0	9.0	2.0		---	4.0	16.0	17.0	20.0	22.0	25.5	20.0
5	15.5	8.5	2.0		---	3.0	15.5	18.5	21.0	22.0	26.0	19.5
6	15.5	9.0	2.0		---	4.0	13.0	18.0	22.0	24.0	25.0	20.5
7	15.5	8.5	4.0		---	4.0	13.0	16.0	22.0	25.5	26.0	22.0
8	16.5	10.5	6.0		---	4.0	15.0	16.5	22.0	27.0	25.0	21.0
9	16.5	8.0	5.5		---	4.5	14.0	17.0	23.0	28.0	27.0	21.0
10	14.0	7.0	5.5		---	5.5	15.5	17.0	21.5	29.0	27.5	21.0
11	14.0	5.0	4.0		2.0	5.0	14.5	18.0	23.0	29.0	28.0	23.0
12	13.5	6.0	3.0		---	6.0	14.5	17.0	23.5	29.0	26.5	23.0
13	12.0	7.5	3.5		.5	7.0	12.0	15.0	24.5	29.0	25.5	24.0
14	12.0	7.5	3.0		1.0	4.0	9.0	16.0	23.0	28.0	26.5	24.5
15	13.5	7.0	.5		2.5	6.5	9.0	16.0	24.0	27.0	25.0	22.0
16	14.0	7.5	.5		4.0	6.0	10.0	15.5	25.0	25.5	27.0	21.0
17	16.5	4.5	1.0		4.5	5.0	10.0	16.5	22.5	26.5	24.5	21.0
18	15.5	3.0	.5		5.5	4.0	13.0	17.0	23.0	24.0	25.0	20.5
19	16.0	4.0	---		6.5	3.0	12.5	16.0	25.0	28.0	25.0	19.5
20	14.0	4.5	---		5.5	3.5	13.0	17.0	23.5	27.0	25.0	18.5
21	14.0	4.0	---		5.0	5.0	12.0	18.0	24.0	27.0	25.0	17.0
22	14.0	5.0	---		5.5	6.0	13.0	21.0	23.5	26.0	24.0	18.0
23	12.5	3.5	---		6.0	7.0	12.0	21.0	24.0	26.0	25.0	16.0
24	12.0	4.0	---		5.0	8.0	12.0	22.0	24.0	24.5	24.0	16.0
25	11.0	5.5	---		5.0	8.0	11.0	24.0	24.0	22.0	24.0	17.0
26	8.5	4.5	---		5.5	9.0	11.0	23.0	21.5	22.0	24.5	20.5
27	8.5	3.5	---		6.0	9.0	14.0	23.0	22.0	24.0	25.5	21.5
28	9.0	3.5	---		5.5	11.0	14.5	21.0	23.0	23.0	26.5	19.0
29	8.0	3.5	.5		---	13.0	16.5	21.5	24.5	23.0	25.0	18.0
30	9.0	4.5	.5		---	12.0	15.0	23.0	25.5	24.0	25.0	17.0
31	9.0	---	---		---	14.0	---	21.0	---	25.0	24.0	---
MEAN	13.5	6.0	3.0		4.5	6.5	13.0	18.5	22.5	25.5	25.5	20.0

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	693	3	5.6	1630	6	26	1950	6	32
2	693	3	5.6	1600	5	22	1730	4	19
3	693	3	5.6	1580	5	21	1710	5	23
4	693	2	3.7	1560	4	17	1750	4	19
5	705	3	5.7	1210	4	13	1950	4	21
6	705	3	5.7	750	4	8.1	1730	4	19
7	693	3	5.6	705	3	5.7	1610	3	13
8	705	3	5.7	717	4	7.7	1560	3	13
9	681	3	5.5	728	5	9.8	1510	3	12
10	843	3	6.8	804	4	8.7	1510	3	12
11	894	2	4.8	804	3	6.5	1600	2	8.6
12	705	4	7.6	993	3	8.0	2130	3	17
13	622	3	5.0	909	2	4.9	1840	2	9.9
14	618	2	3.3	804	3	6.5	1670	2	9.0
15	592	2	3.2	750	4	8.1	1560	5	21
16	613	2	3.3	750	2	4.1	1490	9	36
17	618	1	1.7	750	2	4.1	1370	5	18
18	622	3	5.0	880	4	9.5	1200	6	19
19	626	3	5.1	951	2	5.1	1100	5	15
20	630	3	5.1	993	1	2.7	1000	4	11
21	630	2	3.4	1080	2	5.8	920	4	9.9
22	630	2	3.4	993	1	2.7	830	3	6.7
23	626	3	5.1	937	2	5.1	780	5	11
24	626	4	6.8	1240	4	13	740	5	10
25	830	6	13	2510	27	183	690	4	7.5
26	1370	4	15	4740	53	706	660	4	7.1
27	1950	9	47	3390	18	165	630	4	6.8
28	2070	8	45	2490	12	81	610	3	4.9
29	1490	6	24	2130	8	46	600	3	4.9
30	1390	7	26	2090	5	28	600	3	4.9
31	1560	7	29	---	---	---	590	4	6.4
TOTAL	26816	---	317.3	41468	---	1434.1	39620	---	427.6

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	560	3	4.5	540	3	4.4	7680	4	83
2	540	3	4.4	800	10	22	6320	12	205
3	520	3	4.2	2000	20	108	5560	11	165
4	510	3	4.1	3500	45	425	4970	8	107
5	490	3	4.0	2500	10	67	4480	6	73
6	470	2	2.5	2000	6	32	4050	5	55
7	470	3	3.8	1900	5	26	4170	4	45
8	470	3	3.8	1800	4	19	3920	4	42
9	470	3	3.8	1700	3	14	3490	3	28
0	470	2	2.5	1600	3	13	3200	3	26
1	460	2	2.5	3500	110	1040	3170	3	26
2	460	3	3.7	16700	230	10400	3170	3	26
3	450	3	3.6	10100	190	5180	3180	4	34
4	460	4	5.0	5960	60	966	3110	4	34
5	460	4	5.0	4170	23	259	3010	3	24
6	470	2	2.5	3570	13	125	2910	3	24
7	470	2	2.5	3270	9	79	2880	3	23
8	480	2	2.6	2910	7	55	3110	3	25
9	480	2	2.6	3480	7	66	3010	2	16
0	480	2	2.6	11200	124	4750	2970	3	24
1	490	2	2.6	26600	312	2300	2910	2	16
2	500	2	2.7	24400	166	11100	2850	3	23
3	510	1	1.4	24000	123	9400	2780	2	15
4	520	1	1.4	39700	290	31100	2690	3	22
5	520	2	2.8	23800	68	5530	2630	2	14
6	520	2	2.8	17600	40	1960	2340	2	13
7	520	2	2.8	12400	33	1100	2100	1	5.7
8	520	2	2.8	9290	20	502	2070	1	5.6
9	530	2	2.9	---	---	---	2060	2	11
0	540	3	4.4	---	---	---	2130	3	17
1	540	3	4.4	---	---	---	2230	4	24
TOTAL	15350	---	101.2	265990	---	86642.4	105150	---	1251.3

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	2370	4	26	3570	12	116	3640	35	344
2	2710	5	37	3370	10	91	3400	30	275
3	2610	5	35	3280	9	80	3270	28	247
4	2630	4	28	3120	8	67	3350	31	280
5	2630	3	21	2890	10	78	4520	42	513
6	2630	4	28	2500	11	74	4940	48	640
7	2640	4	29	2430	12	79	4830	49	639
8	2550	4	28	2360	11	70	3830	35	362
9	2440	5	33	2260	12	73	3500	30	283
10	2210	5	30	2130	12	69	3040	23	189
11	2180	6	35	2280	17	105	3140	23	195
12	2460	7	46	4170	55	619	3250	24	211
13	5080	46	1010	13800	138	5140	2820	19	145
14	20900	110	6140	11100	50	1560	3140	23	195
15	25400	77	5280	7160	30	606	6500	116	2150
16	22700	53	3330	5480	27	399	9380	116	2930
17	15300	26	1070	5600	27	408	7640	67	1410
18	10300	21	584	5100	26	358	4960	40	536
19	9520	19	488	4010	21	227	3650	27	266
20	7400	17	340	3770	17	173	4720	59	752
21	5650	13	198	3540	16	153	4180	100	1130
22	4720	11	140	3020	16	130	3900	50	526
23	4400	10	119	2590	14	98	3690	68	677
24	4360	10	118	2430	13	85	3520	47	447
25	4550	10	123	2280	14	86	3230	35	305
26	4320	7	82	2050	13	72	3720	87	874
27	3880	8	84	2220	28	175	3370	62	564
28	3440	8	74	3050	45	371	3130	34	287
29	3400	9	83	4480	50	605	2630	28	199
30	3570	11	106	4380	50	591	2390	30	194
31	---	---	---	5200	63	885	---	---	---
TOTAL	188950	---	19745	125620	---	13643	121280	---	17765

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	2220	19	114	1510	9	37	804	10	22
2	2750	18	134	1370	6	22	1060	16	46
3	2670	19	137	1190	4	13	1190	18	58
4	2840	20	153	1420	8	31	1130	14	43
5	3390	26	246	1390	9	34	1190	16	51
6	4380	45	532	1190	11	35	1490	21	84
7	3770	37	377	1090	8	24	1440	20	78
8	3040	28	230	1020	9	25	1190	17	55
9	2650	23	165	1050	9	26	1280	18	62
10	2230	19	114	979	8	21	1270	18	62
11	1970	14	74	937	9	23	1370	17	63
12	1800	10	49	868	9	21	1310	14	50
13	1650	7	31	817	11	24	1130	8	24
14	1540	7	29	804	13	28	993	8	21
15	1440	6	23	791	14	30	979	8	21
16	1410	6	23	791	13	28	937	7	18
17	1370	6	22	777	14	29	979	7	19
18	1340	5	18	764	13	27	1210	5	16
19	1300	3	11	750	11	22	1210	5	16
20	1220	4	13	717	11	21	1050	3	8.5
21	1610	8	35	693	10	19	993	3	8.0
22	2270	14	86	656	7	12	951	2	5.1
23	2320	17	106	643	6	10	923	1	2.5
24	1560	11	46	643	6	10	791	2	4.3
25	1300	8	28	630	7	12	777	2	4.2
26	1190	7	22	630	7	12	777	1	2.1
27	1360	9	33	630	7	12	791	1	2.1
28	1690	16	73	630	6	10	843	1	2.3
29	1910	16	83	622	6	10	717	1	1.9
30	1490	17	68	622	7	12	681	1	1.8
31	1800	14	68	693	8	15	---	---	---
TOTAL	63480	---	3143	27317	---	655	31456	---	851.8
YEAR	1052497		145976.7						

01567500 BIXLER RUN NEAR LOYSVILLE, PA

LOCATION.--Lat 40°22'15", long 77°24'09", Perry County, Hydrologic Unit 02050305, on right bank 400 ft (122 m) upstream from bridge on State Highway 850 at Bixler, 2.3 mi (3.7 km) upstream from mouth, and 3.6 mi (5.8 km) west of Loysville.

DRAINAGE AREA.--15.0 mi^2 (38.8 km^2).

PERIOD OF RECORD.--January 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 601.22 ft (183.252 m) National Geodetic Vertical Datum of 1929. Prior to May 14, 1954, nonrecording gage and crest-stage gage 400 ft (122 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 18.6 ft^3/s (0.527 m^3/s), 16.84 in/yr (428 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,780 ft^3/s (249 m^3/s) Nov. 1, 1956, gage height, 10.39 ft (3.167 m), from rating curve extended above 1,000 ft^3/s (28.3 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.5 ft^3/s (0.042 m^3/s) Feb. 2, 1959; minimum gage height, 2.20 ft (0.671 m), Jan. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 2	1200	635	18.0	6.06	1.847	Feb. 20	0545	255	7.22	5.04	1.536
Feb. 11	0330	*2,300	65.1	a* 8.03	2.506	Feb. 23	1715	1,050	29.7	6.72	2.048

Minimum discharge, 2.7 ft^3/s (0.076 m^3/s) Feb. 10, gage height, 2.63 ft (0.802 m).

a 8.22 ft (2.506 m) from floodmarks.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	4.3	5.2	3.9	3.8	26	9.3	12	8.4	6.4	3.7	8.1
2	3.3	4.3	5.4	3.9	206	24	9.3	11	12	24	3.7	19
3	3.5	4.3	6.7	3.9	14	21	8.1	10	12	9.3	4.3	8.4
4	3.4	4.4	5.0	3.8	6.0	18	8.1	9.9	13	12	13	7.9
5	3.3	4.3	4.8	3.4	4.6	19	8.7	9.6	11	11	7.3	9.3
6	3.1	4.3	4.8	3.3	4.1	18	8.1	9.6	9.6	9.0	4.5	6.4
7	3.3	4.3	5.0	3.3	3.9	16	7.6	9.0	8.4	7.1	4.2	5.7
8	3.4	4.4	4.8	3.3	3.7	16	7.3	8.7	7.9	5.9	5.5	13
9	3.9	5.0	4.8	3.3	3.8	18	7.9	8.4	8.1	5.5	4.2	11
10	3.9	4.6	5.2	3.2	29	17	7.3	8.4	8.7	5.1	3.8	6.4
11	4.1	4.4	4.6	3.2	635	16	8.1	17	8.1	4.7	3.7	5.5
12	3.9	4.3	4.6	3.2	34	16	18	33	6.8	4.5	3.8	4.9
13	3.9	4.4	4.6	3.2	19	15	26	19	6.8	4.5	3.8	4.7
14	3.9	4.4	4.3	3.1	15	14	42	16	39	4.3	3.7	4.5
15	4.1	4.4	4.3	3.2	12	13	31	18	42	4.2	4.0	6.4
16	4.1	4.3	4.4	3.2	11	14	26	17	19	4.2	4.2	9.0
17	4.1	4.6	4.3	3.2	12	13	24	13	14	4.3	3.5	5.9
18	4.3	6.0	4.3	3.2	12	12	21	12	11	3.8	3.4	5.1
19	4.3	5.0	4.4	3.2	14	11	18	11	9.3	3.8	3.4	4.9
20	4.3	5.0	3.9	3.3	151	11	16	10	14	4.3	3.4	4.5
21	4.3	4.8	3.9	3.3	102	11	14	9.3	9.9	4.7	3.4	4.3
22	4.3	5.4	3.9	3.4	59	9.9	13	8.7	8.4	4.3	3.4	4.3
23	4.3	5.2	3.9	3.5	460	9.6	17	8.1	7.1	3.8	3.4	4.3
24	4.3	34	4.1	3.6	223	9.3	16	7.6	6.1	3.7	3.4	4.0
25	24	16	3.9	3.7	90	9.0	13	7.3	10	4.0	3.3	4.0
26	7.4	6.9	3.8	4.1	54	8.7	12	9.6	9.3	6.4	3.4	4.0
27	5.0	6.0	3.8	4.3	37	8.7	11	11	6.1	8.4	3.4	3.8
28	4.6	9.3	3.9	4.3	31	8.1	12	16	5.5	4.5	3.3	3.7
29	4.4	6.9	4.1	3.9	---	8.1	14	18	4.9	4.7	3.3	3.7
30	4.3	5.4	4.3	3.8	---	9.9	13	11	4.7	4.0	5.5	3.8
31	4.3	---	4.1	3.6	---	9.6	---	9.9	---	3.7	10	---
TOTAL	146.6	190.9	139.1	108.8	2249.9	429.9	446.8	379.1	341.1	190.1	136.9	190.5
MEAN	4.73	6.36	4.49	3.51	80.4	13.9	14.9	12.2	11.4	6.13	4.42	6.35
MAX	24	34	6.7	4.3	635	26	42	33	42	24	13	19
MIN	3.1	4.3	3.8	3.1	3.7	8.1	7.3	7.3	4.7	3.7	3.3	3.7
CFSM	.32	.42	.30	.23	5.36	.93	.99	.81	.76	.41	.30	.42
IN.	.36	.47	.34	.27	5.58	1.07	1.11	.94	.85	.47	.34	.47

CAL YR 1980 TOTAL 6046.5 MEAN 16.5 MAX 344 MIN 3.1 CFSM 1.10 IN 14.99
WTR YR 1981 TOTAL 4949.7 MEAN 13.6 MAX 635 MIN 3.1 CFSM .91 IN 12.27

01568000 SHERMAN CREEK AT SHERMANS DALE, PA

LOCATION.--Lat 40°19'24", long 77°10'09", Perry County, Hydrologic Unit 02050305, on left bank on downstream side of bridge on State Highway 34 at Shermans Dale, and 1.2 mi (1.9 km) upstream from Fishing Run.

DRAINAGE AREA.--200 mi^2 (518 km^2).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some months, published in WSP 1302. Prior to October 1962, published as "at Shermandale".

REVISED RECORDS.--WSP 1302: 1930(M), WSP 1502: 1933, 1934(M), 1935-36.

GAGE.--Water-stage recorder. Datum of gage is 422.63 ft (128.818 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 29, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods which are fair. Some regulation at low flow by mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years, 288 ft^3/s (8.156 m^3/s), 19.56 in/yr (497 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft^3/s (779 m^3/s) June 23, 1972, gage height, 18.09 ft (5.514 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s); minimum, 3.9 ft^3/s (0.11 m^3/s) Dec. 1, 1930; minimum gage height, 0.62 ft (0.189 m) Sept. 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 22, 1927 reached a stage of 20.34 ft (6.200 m), from floodmark, discharge, about 44,000 ft^3/s (1,250 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1845	6,200	176	8.80	2.682
Feb. 20	1200	5,000	142	7.90	2.408
Feb. 23	2200	*9,580	271	*10.96	3.341

Minimum daily discharge, 20 ft^3/s (0.566 m^3/s) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	32	74	22	30	535	130	228	141	80	56	122
2	29	31	65	22	100	447	137	220	138	177	53	190
3	29	30	72	22	86	379	124	193	172	131	59	200
4	31	32	68	21	76	323	128	175	218	160	158	123
5	29	31	66	21	70	327	143	162	175	171	241	141
6	43	32	78	21	67	301	146	159	133	145	127	139
7	36	32	60	21	64	270	128	154	121	118	94	113
8	33	33	57	21	72	254	123	136	104	97	87	134
9	26	34	52	21	84	262	125	129	100	84	110	203
10	27	38	55	21	144	276	125	126	107	74	77	136
11	27	38	55	21	3810	263	125	253	119	66	64	104
12	26	34	52	21	971	255	239	762	93	59	62	85
13	25	33	45	21	322	236	652	448	78	59	59	76
14	25	32	43	20	253	223	851	365	138	55	54	71
15	25	31	41	21	193	204	893	329	376	50	48	73
16	25	32	38	21	165	213	628	340	201	49	56	135
17	26	33	34	21	159	216	519	266	138	49	53	132
18	27	52	32	21	175	177	447	220	117	45	44	99
19	30	55	30	21	202	181	376	193	102	44	40	85
20	29	52	29	22	3150	170	340	183	340	50	38	76
21	29	44	28	22	2510	161	297	162	220	67	38	70
22	27	43	27	22	1190	149	264	149	170	62	33	64
23	28	44	26	22	4400	141	277	126	125	54	35	62
24	29	231	25	22	5520	128	498	124	106	45	36	56
25	100	384	24	23	1740	128	354	114	120	40	32	51
26	223	159	24	24	1080	122	297	112	201	83	37	47
27	82	95	23	24	778	119	269	126	126	496	34	48
28	48	97	23	24	630	114	258	146	103	130	32	51
29	39	102	22	25	---	108	286	477	92	99	29	44
30	36	88	22	25	---	121	258	250	83	85	28	44
31	33	---	22	26	---	160	---	177	---	68	74	---
TOTAL	1251	2004	1312	682	28041	6963	9437	7004	4457	2992	1988	2974
MEAN	40.4	66.8	42.3	22.0	1001	225	315	226	149	96.5	64.1	99.1
MAX	223	384	78	26	5520	535	893	762	376	496	241	203
MIN	25	30	22	20	30	108	123	112	78	40	28	44
CFSM	.20	.33	.21	.11	5.01	1.13	1.58	1.13	.75	.48	.32	.50
IN.	.23	.37	.24	.13	5.22	1.30	1.76	1.30	.83	.56	.37	.55

CAL YR 1980 TOTAL 91283 MEAN 249 MAX 4550 MIN 22 CFSM 1.25 IN 16.98
WTR YR 1981 TOTAL 69105 MEAN 189 MAX 5520 MIN 20 CFSM .95 IN 12.85

RESERVOIR IN CLARK CREEK BASIN

01568400 DeHART RESERVOIR.--Lat 40°27'50", long 76°44'50", Dauphin County, Hydrologic Unit 02050305, at dam on Clark Creek, 1.8 mi (2.9 km) southeast of Carsonville, and 15.3 mi (24.6 km) upstream from mouth. DRAINAGE AREA, 21.7 mi^2 (56.2 km^2). PERIOD OF RECORD: October 1940 to current year. STAFF GAGE, Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Harrisburg).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 644.0 ft (196.291 m) crest of spillway raised 4 ft (1.22 m) in November 1954. Storage began Jan. 21, 1940. Capacity at elevation 644.00 ft (196.291 m) is 18,480 acre-ft (22.8 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. There are no gates on spillway and regulation is controlled by valves on pipe through dam. Records furnished by city of Harrisburg.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 19,460 acre-ft (24.0 hm^3) Sept. 27, 1975 elevation, 645.75 ft (196.825 m); minimum (after first filling), 4,680 acre-ft (5.77 hm^3) Jan. 2, 1966 elevation, 613.33 ft (186.943 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 18,480 acre-ft (22.8 hm^3) May 29, 30, 31, June 1-8, elevation, 644.00 ft (196.291 m); minimum, 7,760 acre-ft (9.57 hm^3) Feb. 8, 9, 10, elevation, 623.25 ft (189.967 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs
	01568400	DeHart Reservoir	
Sept. 30	634.92	13150	--
Oct. 31	632.08	11640	- 24.6
Nov. 30	630.00	10620	- 17.1
Dec. 31	627.58	9550	- 17.4
CAL YR 1980	--	--	- 12.4
Jan. 31	623.42	7830	- 28.0
Feb. 28	639.33	15730	+142
Mar. 31	640.17	16240	+ 8.3
Apr. 30	642.25	17450	+ 20.3
May 31	644.00	18480	+ 16.8
June 30	643.42	18140	- 5.7
July 31	642.25	17450	- 11.2
Aug. 31	640.08	16190	- 20.5
Sept. 30	638.00	14950	- 20.8
WTR YR 1981........	--	--	+ 2.5

01568500 CLARK CREEK NEAR CARSONVILLE, PA

LOCATION.--Lat 40°27'37", long 76°45'06", Dauphin County, Hydrologic Unit 02050305, on right bank 0.3 mi (0.5 km) downstream from DeHart Dam, 1.8 mi (2.9 km) southeast of Carsonville, and 15 mi (24 km) upstream from mouth.

DRAINAGE AREA.--22.5 mi² (58.3 km²).

PERIOD OF RECORD.--September 1937 to current year.

REVISED RECORDS.--WSP 1302: 1940(M). WSP 1702: 1942 (monthly mean).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 552.32 ft (168.346 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 6, 1939, water-stage recorder at site 1,700 ft (518 m) upstream at datum 9.49 ft (2.893 m) higher. Jan. 6, 1939 to July 27, 1940, nonrecording gage at site 100 ft (30 m) downstream at different datum.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 19 to Nov. 2, Dec. 12 to Jan. 12, July 5 to July 17, and for winter periods, which are fair. Flow regulated by DeHart Reservoir (station 01568400) since 1941. Diversion from reservoir to city of Harrisburg. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 40.2 ft³/s (1.138 m³/s), 24.26 in/yr (616 mm/yr), adjusted for storage and diversion since 1941.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s (136 m³/s) June 22, 1972, gage height, 10.98 ft (3.347 m), from rating curve extended above 2,400 ft³/s (68.0 m³/s) on basis of computation of peak flow over dam; minimum daily, 0.2 ft³/s (0.006 m³/s) Jan. 29 to Feb. 3, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90 ft³/s (2.55 m³/s) May. 22, 24, June 8, 15, gage height, 2.27 ft (0.692 m); minimum, 1.4 ft³/s (0.04 m³/s) gage height, 0.85 ft (0.259 m) Jan. 29-31, Feb. 1, 5-10; minimum daily, 1.4 ft³/s (0.04 m³/s) Jan. 30, 31, Feb. 1, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	5.4	5.4	5.4	1.4	3.8	2.5	3.0	6.3	6.5	5.1	5.1
2	5.6	5.4	5.6	5.4	3.5	3.5	2.5	3.0	7.7	6.9	5.1	5.1
3	5.4	5.4	5.4	5.3	1.8	3.3	2.5	2.9	6.9	6.5	5.3	5.1
4	5.4	5.4	5.4	5.1	1.5	3.2	2.6	2.9	6.5	6.5	5.3	4.9
5	5.4	5.4	5.4	4.9	1.5	3.2	2.7	2.9	6.3	6.5	5.3	4.9
6	5.4	5.4	5.4	5.1	1.5	3.0	2.7	2.9	6.3	10	5.1	4.9
7	5.4	5.4	5.4	5.3	1.5	2.9	2.6	2.9	6.3	6.5	5.1	4.9
8	5.4	5.4	5.4	5.4	1.5	2.9	2.6	2.7	23	6.5	5.3	5.1
9	5.4	5.6	5.4	5.4	1.4	2.9	2.6	2.7	6.5	6.5	5.3	4.9
10	5.4	5.4	5.4	5.4	1.9	2.9	2.6	2.9	6.5	4.6	5.1	4.9
11	5.4	5.4	5.4	5.3	15	2.9	2.9	3.6	6.3	4.7	5.3	4.9
12	5.4	5.4	5.4	5.3	4.3	2.9	3.6	4.4	6.3	4.8	5.1	4.9
13	5.4	5.4	5.4	5.3	2.8	2.7	3.6	10	6.3	4.9	5.1	5.1
14	5.4	5.4	5.4	5.3	2.5	2.7	4.3	5.1	6.7	5.1	5.1	5.1
15	5.4	5.4	5.4	5.3	2.4	2.7	3.9	8.5	17	5.3	5.3	5.3
16	5.4	5.4	5.4	5.3	2.2	2.7	3.6	5.3	6.3	5.4	5.3	5.1
17	5.4	5.4	5.4	5.3	2.1	2.7	3.6	4.9	6.3	5.4	5.1	4.9
18	5.6	5.6	5.4	5.3	2.1	2.6	3.6	4.9	6.3	5.6	5.1	4.9
19	5.4	5.4	5.4	5.3	2.3	2.6	3.3	4.9	6.3	5.6	5.1	4.9
20	5.4	5.4	5.4	5.3	18	2.6	3.3	4.9	6.5	6.1	5.1	4.9
21	5.4	5.4	5.4	5.3	9.1	2.6	3.2	4.9	6.3	8.8	5.1	4.9
22	5.4	5.4	5.4	5.3	5.6	2.5	3.2	27	6.5	5.8	5.1	4.9
23	5.4	5.4	5.4	5.3	28	2.5	3.5	5.1	6.3	5.6	4.9	4.9
24	5.4	7.2	5.4	5.3	14	2.5	3.6	23	6.3	5.3	4.9	4.9
25	5.4	5.8	5.4	5.3	6.9	2.5	3.3	6.5	6.5	5.3	4.9	4.9
26	5.4	5.6	5.4	5.3	5.4	2.5	3.2	6.5	6.3	5.3	4.9	4.9
27	5.4	5.6	5.4	5.3	4.6	2.5	3.0	6.5	6.3	5.3	4.9	4.9
28	5.4	5.6	5.4	5.3	4.1	2.5	3.0	7.7	6.3	5.1	5.1	4.9
29	5.4	5.4	5.4	3.8	---	2.5	3.2	6.5	6.3	5.1	4.9	4.9
30	5.4	5.4	5.4	1.4	---	2.6	3.2	6.3	6.3	5.1	4.9	4.9
31	5.4	---	5.4	1.4	---	2.5	---	6.3	---	5.1	5.3	---
TOTAL	168.0	165.2	167.6	154.7	148.9	86.4	94.0	191.6	220.0	181.7	158.5	148.8
MEAN	5.42	5.51	5.41	4.99	5.32	2.79	3.13	6.18	7.33	5.86	5.11	4.96
MAX	5.6	7.2	5.6	5.4	28	3.8	4.3	27	23	10	5.3	5.3
MIN	5.4	5.4	5.4	1.4	1.4	2.5	2.5	2.7	6.3	4.6	4.9	4.9
(†)	20.2	19.2	19.4	20.7	19.6	19.1	18.5	19.0	19.5	20.7	20.8	19.8
MEAN‡	1.02	7.61	7.41	0	167	30.2	41.9	42.0	21.1	15.4	5.41	3.96
CFSM‡	.04	.34	.33	0	7.42	1.34	1.86	1.87	.94	.68	.24	.18
IN.‡	.05	.38	.38	0	7.73	1.54	2.08	2.16	1.05	.78	.28	.20

CAL YR 1980 TOTAL 7219.6 MEAN 19.7 MAX 485 MIN 5.0 MEAN‡ 27.4 CFSM‡ 1.22 IN.‡ 16.6
WTR YR 1981 TOTAL 1885.4 MEAN 5.17 MAX 28 MIN 1.4 MEAN‡ 27.4 CFSM‡ 1.22 IN.‡ 16.5

†Diversion, equivalent in cubic feet per second, from DeHart Reservoir for municipal supply; furnished by city of Harrisburg.

‡Adjusted for diversion and change in reservoir contents.

01569800 LETORT SPRING RUN NEAR CARLISLE, PA

LOCATION.--Lat 40°14'05", long 77°08'23", Cumberland County, Hydrologic Unit 02050305, on right bank 320 ft (98 m) downstream from bridge on U.S. Highway No. 11, 3.1 mi (5.0 km) west of New Kingston and 3.7 mi (6.0 km) east of Carlisle.

DRAINAGE AREA.--21.6 mi² (55.9 km²).

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 410 ft (125 m), from topographic map. Crest-stage gage at same site.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 49.0 ft³/s (1.388 m³/s), 30.81 in/yr (782 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft³/s (39.6 m³/s) Jan. 24, 1979, gage height, 6.53 ft (1.990 m) from rating curve extended above 680 ft³/s (19.3 m³/s) on basis of slope-area measurement of peak flow; minimum, 20 ft³/s (0.57 m³/s) Sept. 26, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 8.8 ft (2.68 m), discharge not determined, and flood in June 1972 reached a stage of 8.4 ft (2.56 m), from information by local resident, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 25	1430	122	3.46	4.42	1.347	May 11	0345	101	2.86	4.29	1.308
Nov. 24	1645	107	3.03	4.33	1.320	May 28	2015	130	3.68	4.47	1.362
Feb. 2	1315	162	4.59	4.64	1.414	June 15	0315	110	3.12	4.35	1.326
Feb. 11	0745	*199	5.64	a*4.94	1.506	June 22	0330	100	2.83	4.28	1.304
Feb. 21	0330	122	3.46	4.42	1.347	Aug. 3	1415	104	2.95	4.31	1.314
Feb 23	1900	185	5.24	4.78	1.457						

Minimum discharge, 20 ft³/s (0.57 m³/s) Sept. 26, gage height, 3.50 ft (1.067 m).

a From floodmarks.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	29	26	25	68	40	41	38	35	30	26
2	29	27	32	26	96	65	38	40	42	51	28	28
3	29	28	30	26	43	63	36	40	39	37	52	29
4	30	28	30	26	38	60	38	40	40	40	57	26
5	28	28	29	26	35	62	40	40	36	36	40	26
6	28	27	29	26	32	59	36	40	35	35	35	25
7	28	27	28	26	31	57	35	39	33	34	34	25
8	28	27	28	26	30	54	35	38	32	33	32	25
9	28	27	28	26	30	53	35	38	32	33	31	24
10	28	27	28	26	39	52	34	37	34	32	30	24
11	28	27	28	25	132	52	40	52	32	32	32	24
12	28	27	28	25	59	49	46	47	31	31	32	24
13	28	27	28	25	52	48	51	40	30	32	31	24
14	28	26	27	25	47	46	65	38	40	32	30	24
15	28	26	27	25	43	44	57	38	62	32	30	30
16	28	26	28	25	41	46	53	37	39	31	29	29
17	28	27	28	24	39	44	51	35	36	31	29	26
18	30	35	28	23	37	44	48	35	35	30	29	25
19	28	30	28	24	36	43	46	35	35	30	28	25
20	28	30	27	25	65	42	46	35	41	36	28	24
21	28	28	26	25	87	41	45	34	35	37	28	24
22	28	28	26	26	64	40	44	34	62	32	28	24
23	28	27	26	26	123	40	46	33	40	31	26	23
24	28	67	26	25	117	40	45	32	39	31	27	23
25	64	40	26	25	94	38	42	32	45	30	26	23
26	34	35	26	25	84	37	41	34	46	35	24	23
27	32	32	26	25	78	36	41	33	38	40	24	24
28	31	34	26	25	72	35	42	48	36	33	24	23
29	30	31	28	25	---	35	42	45	35	32	24	23
30	29	30	27	25	---	40	41	41	35	31	24	22
31	28	---	26	25	---	38	---	39	---	30	29	---
TOTAL	927	907	857	783	1669	1471	1299	1190	1153	1045	951	745
MEAN	29.9	30.2	27.6	25.3	59.6	47.5	43.3	38.4	38.4	33.7	30.7	24.8
MAX	64	67	32	26	132	68	65	52	62	51	57	30
MIN	28	26	26	23	25	35	34	32	30	30	24	22
CFSM	1.38	1.40	1.28	1.17	2.76	2.20	2.01	1.78	1.78	1.56	1.42	1.15
IN.	1.60	1.56	1.48	1.35	2.87	2.53	2.24	2.05	1.99	1.80	1.64	1.28

CAL YR 1980 TOTAL 15632 MEAN 42.7 MAX 93 MIN 26 CFSM 1.98 IN 26.92
WTR YR 1981 TOTAL 12997 MEAN 35.6 MAX 132 MIN 22 CFSM 1.65 IN 22.38

01570000 CONODOGUINET CREEK NEAR HOGESTOWN, PA

LOCATION.--Lat 40°15'08", long 77°01'17", Cumberland County, Hydrologic Unit 02050305, on left bank 1,000 ft (305 m) upstream from highway bridge, 0.4 mi (0.6 km) downstream from Hogestown Run, and 1 mi (1.5 km) northeast of Hogestown.

DRAINAGE AREA.--470 mi^2 (1,217 km^2).

PERIOD OF RECORD.--October 1911 to September 1917, October 1929 to September 1958, June 1967 to current year. Monthly discharges only for some periods, published in WSP 1302. October 1917 to December 1919, gage heights and discharge measurements only, contained in reports of Water Supply Commission of Pennsylvania. Published as "at Brysons Bridge" 1912-17.

REVISED RECORDS.--WSP 1722: 1913, 1917.

GAGE.--Water-stage recorder. Datum of gage is 351.00 ft (106.985 m) National Geodetic Vertical Datum of 1929. Prior to December 1919, nonrecording gage at site 2 mi (3.2 km) downstream at different datum. Oct. 1, 1929 to Aug. 3, 1931, nonrecording gage at site 1,000 ft (305 m) downstream at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Since June 1969 the Riverton Consolidated Water Water Co. diverts water, equivalent to a mean discharge of about 6.0 ft^3/s (0.17 m^3/s), at a point just upstream from gage for municipal water supply. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years (1911-17, 1929-58, 1967 to 1981), 594 ft^3/s (16.82 m^3/s), 17.16 in/yr (436 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,700 ft^3/s (954 m^3/s) June 23, 1972, gage height, 17.01 ft (5.185 m), from floodmark in gage shelter; minimum, 24 ft^3/s (0.68 m^3/s) Dec. 16, 1930; minimum daily, 26 ft^3/s (0.74 m^3/s) Dec. 23, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	-	-	-	ice jam		Feb. 24	2015	*6,540	185	a*8.22	2.506
Feb. 21	0715	5,730	162	7.74	2.359						

Minimum daily discharge, 80 ft^3/s (2.26 m^3/s) Aug. 30, Sept. 30.

a 8.35 ft (2.545 m) from floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	104	253	96	100	1040	314	350	238	174	112	300
2	98	102	226	94	250	892	322	338	234	226	110	260
3	98	102	241	93	1200	772	310	334	226	198	134	230
4	100	102	230	91	300	670	294	310	270	234	245	230
5	100	104	192	90	250	646	200	286	294	274	417	225
6	102	100	177	89	230	646	314	274	262	262	302	220
7	98	97	171	88	220	604	294	270	230	238	198	210
8	97	98	171	87	210	585	262	253	205	195	168	200
9	97	102	162	86	205	568	253	241	189	168	174	200
10	97	104	168	85	200	568	257	238	195	152	165	190
11	97	98	180	84	1400	562	302	322	241	138	140	240
12	95	98	168	83	1200	556	368	772	234	132	134	170
13	95	97	157	82	900	513	1410	880	195	128	136	130
14	92	97	152	83	600	485	2120	579	198	120	118	110
15	92	98	142	83	500	440	2760	470	502	118	112	170
16	95	97	138	83	400	422	1740	470	445	114	114	240
17	95	100	132	85	386	431	1300	465	318	112	108	220
18	95	128	134	87	381	413	1090	377	253	110	100	198
19	104	150	130	89	422	377	892	334	223	110	97	150
20	97	177	120	91	2320	368	754	314	245	130	94	134
21	97	155	120	93	4580	350	652	298	270	165	94	120
22	95	142	115	95	2160	342	556	274	359	150	91	112
23	94	136	115	100	3030	322	513	253	306	130	91	108
24	92	354	110	105	6100	318	573	238	249	116	88	98
25	145	1190	110	105	3980	302	544	226	249	110	82	92
26	212	796	105	105	1960	298	460	223	326	132	81	91
27	205	450	105	105	1450	286	413	223	334	306	82	91
28	160	363	100	105	1180	278	386	230	245	192	82	92
29	128	350	100	105	---	270	404	350	208	147	82	85
30	114	302	98	105	---	262	377	350	186	134	80	80
31	108	---	97	105	---	298	---	274	---	126	350	---
TOTAL	3392	6393	4619	2877	36114	14884	20524	10816	7929	5041	4381	4996
MEAN	109	213	149	92.8	1290	480	684	349	264	163	141	167
MAX	212	1190	253	105	6100	1040	2760	880	502	306	417	300
MIN	92	97	97	82	100	262	253	223	186	110	80	80
CFSM	.23	.45	.32	.20	2.75	1.02	1.46	.74	.56	.35	.30	.36
IN.	.27	.51	.37	.23	2.86	1.18	1.62	.86	.63	.40	.35	.40

CAL YR 1980 TOTAL 180185 MEAN 492 MAX 6110 MIN 91 CFSM 1.05 IN 14.26
WTR YR 1981 TOTAL 121966 MEAN 334 MAX 6100 MIN 80 CFSM .71 IN 9.65

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA
(National stream-quality accounting network station)

LOCATION.--Lat 40°15'17", long 76°53'11", Dauphin County, Hydrologic Unit 02050305, on east bank of City Island, 60 ft (18 m) downstream from Market Street Bridge, 3,670 ft (1,120 m) upstream from sanitary dam, in Harrisburg, and 1.7 mi (2.7 km) upstream from Paxton Creek. Water-quality sampling site 600 ft (183 m) upstream.

DRAINAGE AREA.--24,100 mi^2 (62,400 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1890 to current year.

REVISED RECORDS.--WSP 711: 1929. WSP 1502: 1891-1923, 1926(M), 1928. WSP 1702: 1953 (total runoff in inches), 1958 (1957 calendar year mean discharge).

GAGE.--Water-stage recorder and concrete-slab control. Datum of gage is 290.01 ft (88.395 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1928, nonrecording gage at Walnut Street Bridge, and Oct. 1, 1928 to Aug. 31, 1975, recording gage at site 3,170 ft (966 m) downstream, all gages at same datum.

REMARKS.--Water-discharge records good except those for winter periods which are fair. Flow slightly regulated by 15 flood-control reservoirs, which have a combined capacity of 1,571,000 acre-ft (1.94 km^3).

AVERAGE DISCHARGE.--91 years, 34,410 ft^3/s (974 m^3/s), 19.39 in/yr (493 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020,000 ft^3/s (28,900 m^3/s) June 24, 1972, gage height, 32.57 ft (9.927 m), from floodmark; minimum, 1,600 ft^3/s (45.3 m^3/s) Nov. 29, 1930, result of freezeup. Minimum daily discharge since construction of sanitary dam and not affected by freezeup, 1,700 ft^3/s (48.1 m^3/s) Sept. 18, 1964; minimum gage height, 1.83 ft (0.558 m) Sept. 13, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known during period 1786 to 1890, 26.8 ft (8.17 m) at Walnut Street Bridge June 2, 1889, discharge, 654,000 ft^3/s (18,500 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 291,000 ft^3/s (8,240 m^3/s) Feb. 24, gage height, 16.18 ft (4.932 m); minimum, 3,110 ft^3/s (88.1 m^3/s) Oct. 13, gage height 2.96 ft (0.902 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3400	11100	21300	8200	5700	91300	16800	74700	17200	20400	13700	4540
2	3330	9980	18900	8100	6000	73300	18800	83400	16100	19100	11700	4940
3	3400	8660	16800	8000	10000	61600	20600	65800	15800	19100	10900	5380
4	3650	7680	18500	6500	15000	55100	23400	52600	16900	19600	10200	5480
5	3480	7090	22700	7000	13000	49100	24200	45000	20400	19300	9840	5350
6	3570	6320	24200	6600	16000	44800	24900	39000	24200	20800	9160	6170
7	3650	5800	24300	6200	15000	40300	24900	34100	25400	20600	8510	6810
8	3650	5600	21800	6000	14500	36300	23400	30300	22800	19900	8110	7270
9	3480	5400	18900	5900	14000	32300	22000	26100	19700	17900	8280	8360
10	3480	5200	17500	5800	16000	29500	21400	22700	18800	16900	9310	9030
11	3650	5100	17500	5700	25000	28100	20900	23500	23400	14700	8740	11000
12	3480	5300	19600	5600	142000	27200	21300	28500	26300	13300	8840	11800
13	3330	5900	22900	5500	147000	26200	22900	49900	22400	12000	8820	11800
14	3330	6100	21800	5300	110000	25500	26800	69800	20300	10900	8250	11000
15	3400	6320	19600	5200	83200	23200	45600	59800	23000	10100	7470	10100
16	3400	6320	17700	5200	65400	23200	58100	51900	38200	9340	6880	9260
17	3400	6650	15900	5200	54300	22700	55100	60000	44900	8710	6580	8810
18	3480	7320	14700	5400	49500	22100	49000	60000	43700	8330	6370	8120
19	3480	7200	13800	5600	54100	22000	45600	53600	38500	7780	6260	7710
20	3260	7320	11000	5500	106000	20100	40600	45600	33600	7790	6110	7070
21	3260	7320	9200	5500	214000	19400	36400	39200	36800	9230	5940	7330
22	3260	7090	7400	5600	247000	18800	33100	33300	32700	11100	5680	7170
23	3330	7090	6700	5600	228000	17800	30500	28700	32700	15300	5360	7880
24	3400	8040	6300	5600	274000	17100	29300	25300	33400	17600	5070	9120
25	4120	10300	5900	5600	268000	16500	29600	22500	34900	13700	5200	6110
26	4830	14000	5600	5700	202000	15700	31300	20500	34300	11500	5110	6000
27	5500	15600	5200	5800	149000	15300	33200	18800	30400	11100	4580	5880
28	8160	17800	5900	5900	116000	15200	33400	18200	27800	15200	4440	6850
29	11200	23800	7000	5800	---	15000	32400	19100	25100	13900	4290	12200
30	9700	22700	8400	5600	---	15200	37700	19100	21800	12600	4140	11100
31	10800	---	8300	5600	---	15900	---	18500	---	12200	4420	---
TOTAL	136860	270100	455300	184800	2664700	935800	933200	1239500	821500	439980	228260	239640
MEAN	4415	9003	14690	5961	95170	30190	31110	39980	27380	14190	7363	7988
MAX	11200	23800	24300	8200	274000	91300	58100	83400	44900	20800	13700	12200
MIN	3260	5100	5200	5200	5700	15000	16800	18200	15800	7780	4140	4540
CFSM	.18	.37	.61	.25	3.95	1.25	1.29	1.66	1.14	.59	.31	.33
IN.	.21	.42	.70	.29	4.11	1.44	1.44	1.91	1.27	.68	.35	.37

CAL YR 1980 TOTAL 8922670 MEAN 24380 MAX 199000 MIN 3260 CFSM 1.01 IN 13.77
WTR YR 1981 TOTAL 8549640 MEAN 23420 MAX 274000 MIN 3260 CFSM .97 IN 13.20

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1944 to January 1953, March 1956 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1974 to August 1979.
PH: May 1974 to June 1979.
WATER TEMPERATURES: May 1974 to August 1979.
DISSOLVED OXYGEN: May 1974 to August 1979.
SUSPENDED SEDIMENT DISCHARGE: October 1963 to September 1968, April 1970 to September 1979, April 1980 to March 1981.

REMARKS.--Revisions to previously published pesticide data are shown under "REVISED PESTICIDE ANALYSES."

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 879 mg/L June 23, 1972; minimum daily, 0 mg/L on many days during August and September 1964.
SEDIMENT DISCHARGES: Maximum daily, 2,210,000 tons (2,000,000 tonnes) June 24, 1972; minimum daily, 0 ton tonne) on many days during August and September 1964.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily during period October to March, 339 mg/L Feb. 21; minimum daily during period October to March, 1 mg/L Nov. 15-24.
SEDIMENT DISCHARGE: Maximum daily during period October to March, 199,000 tons (181,000 tonnes) Feb. 24; minimum daily during period October to March, 17 tons (15 tonnes) Nov. 15, 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT												
01...	1120	--	3400	431	8.5	18.0	.40	9.6	<100	69	170	110
07...	0940	--	3730	443	8.2	14.0	3.0	10.0	--	--	--	--
14...	1000	--	3330	428	8.4	9.5	3.0	10.8	--	--	--	--
21...	1020	--	3400	429	8.3	12.5	5.0	10.4	--	--	--	--
25...	1445	--	4470	410	7.9	11.5	4.0	10.8	--	--	160	--
30...	0950	--	9570	400	8.0	11.5	7.0	8.6	--	--	--	--
NOV												
03...	1040	--	8530	370	8.3	8.0	.70	11.6	20	23	140	80
12...	0910	--	5200	354	8.1	3.0	2.0	13.2	--	--	--	--
18...	1050	--	7320	357	7.9	1.5	5.0	13.4	--	--	--	--
24...	0905	--	7680	350	8.0	4.0	3.0	12.8	--	--	130	--
24...	2115	--	9050	340	7.9	4.0	5.0	12.6	--	--	120	--
25...	0920	3590	--	380	--	--	17	--	--	--	--	--
25...	0945	3375	--	299	--	--	26	--	--	--	--	--
25...	1000	3160	--	253	--	--	5.0	--	--	--	--	--
25...	1030	2945	--	277	--	--	3.0	--	--	--	--	--
25...	1055	2730	--	284	--	--	3.0	--	--	--	--	--
25...	1120	2515	--	288	--	--	5.0	--	--	--	--	--
25...	1200	1185	--	288	--	--	4.0	--	--	--	--	--
25...	1210	--	10100	320	8.0	6.0	7.0	13.6	--	--	120	--
25...	1220	970	--	292	--	--	4.0	--	--	--	--	--
25...	1240	755	--	307	--	--	5.0	--	--	--	--	--
25...	1300	540	--	338	--	--	5.0	--	--	--	--	--
25...	1320	325	--	348	--	--	5.0	--	--	--	--	--
25...	1330	110	--	290	--	--	17	--	--	--	--	--
26...	1020	--	13500	325	8.1	3.5	8.0	12.6	--	--	120	--
27...	1125	--	15300	308	8.0	3.5	12	12.8	--	--	110	--
29...	1035	--	24000	293	7.8	3.0	18	12.6	--	--	110	--
DEC												
02...	0930	--	18800	265	7.9	4.0	.80	12.8	180	42	100	53
09...	1020	--	18500	203	7.8	5.5	10	12.8	--	--	--	--
15...	1020	--	19600	224	7.9	.0	4.0	13.4	--	--	--	--
22...	1150	--	6650	305	7.9	.0	4.0	16.0	--	--	--	--
31...	1130	--	9310	371	8.0	.5	3.8	11.4	--	--	--	--
JAN												
19...	1205	--	7920	328	8.1	.5	1.1	14.0	K7	K13	140	84
29...	1155	--	6760	338	8.6	.5	2.5	16.8	--	--	--	--
FEB												
10...	1130	--	18600	293	7.5	.5	1.4	12.2	K16	21	110	69
12...	2215	--	132000	135	7.4	.5	180	--	--	--	42	--
13...	1145	3590	--	191	--	--	115	--	--	--	--	--
13...	1200	3375	--	148	--	--	100	--	--	--	--	--
13...	1210	3160	--	117	--	--	85	--	--	--	--	--

K = Results based on non-ideal colony count.

BEST DOCUMENT AVAILABLE

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
FEB												
13...	1220	2945	--	111	--	--	85	--	--	--	--	--
13...	1230	2730	--	109	--	--	105	--	--	--	--	--
13...	1235	2515	--	109	--	--	115	--	--	--	--	--
13...	1245	--	137000	118	7.4	.5	135	12.6	--	--	38	--
13...	1300	1185	--	110	--	--	120	--	--	--	--	--
13...	1305	970	--	111	--	--	150	--	--	--	--	--
13...	1310	755	--	112	--	--	160	--	--	--	--	--
13...	1325	540	--	120	--	--	165	--	--	--	--	--
13...	1330	325	--	134	--	--	145	--	--	--	--	--
13...	1340	110	--	143	--	--	140	--	--	--	--	--
13...	2150	3590	--	189	--	--	90	--	--	--	--	--
13...	2200	3375	--	159	--	--	85	--	--	--	--	--
13...	2205	3160	--	135	--	--	75	--	--	--	--	--
13...	2215	2945	--	128	--	--	95	--	--	--	--	--
13...	2225	2730	--	123	--	--	125	--	--	--	--	--
13...	2230	--	130000	137	7.4	.5	100	--	--	--	42	--
13...	2231	2515	--	118	--	--	120	--	--	--	--	--
13...	2250	1185	--	118	--	--	115	--	--	--	--	--
13...	2255	970	--	118	--	--	115	--	--	--	--	--
13...	2300	755	--	119	--	--	120	--	--	--	--	--
13...	2310	540	--	121	--	--	110	--	--	--	--	--
13...	2315	325	--	133	--	--	110	--	--	--	--	--
13...	2325	110	--	140	--	--	90	--	--	--	--	--
14...	1135	3590	--	170	--	--	47	--	--	--	--	--
14...	1145	3375	--	142	--	--	39	--	--	--	--	--
14...	1148	3160	--	126	--	--	33	--	--	--	--	--
14...	1150	2945	--	128	--	--	41	--	--	--	--	--
14...	1152	2730	--	136	--	--	75	--	--	--	--	--
14...	1155	2515	--	143	--	--	80	--	--	--	--	--
14...	1202	--	106000	147	7.4	.5	--	--	--	--	46	--
14...	1205	1185	--	149	--	--	95	--	--	--	--	--
14...	1208	970	--	157	--	--	85	--	--	--	--	--
14...	1213	755	--	159	--	--	90	--	--	--	--	--
14...	1216	540	--	162	--	--	90	--	--	--	--	--
14...	1220	325	--	165	--	--	95	--	--	--	--	--
14...	1223	110	--	164	--	--	85	--	--	--	--	--
18...	0925	3590	--	230	--	--	10	--	--	--	--	--
18...	0930	3375	--	176	--	--	13	--	--	--	--	--
18...	0935	3160	--	158	--	--	14	--	--	--	--	--
18...	0945	2945	--	152	--	--	16	--	--	--	--	--
18...	0950	2730	--	146	--	--	18	--	--	--	--	--
18...	1000	2515	--	142	--	--	27	--	--	--	--	--
18...	1035	1185	--	140	--	--	31	--	--	--	--	--
18...	1050	970	--	138	--	--	32	--	--	--	--	--
18...	1100	755	--	141	--	--	33	--	--	--	--	--
18...	1115	540	--	152	--	--	32	--	--	--	--	--
18...	1140	--	49900	156	7.5	3.5	24	13.4	--	--	54	--
18...	1141	325	--	169	--	--	29	--	--	--	--	--
18...	1155	110	--	183	--	--	27	--	--	--	--	--
20...	1140	3590	--	183	--	--	43	--	--	--	--	--
20...	1150	3375	--	146	--	--	21	--	--	--	--	--
20...	1205	3160	--	127	--	--	27	--	--	--	--	--
20...	1215	2945	--	123	--	--	34	--	--	--	--	--
20...	1230	2730	--	121	--	--	40	--	--	--	--	--
20...	1240	2515	--	124	--	--	39	--	--	--	--	--
20...	1310	--	101000	147	7.5	5.0	33	12.6	--	--	--	--
20...	1335	1185	--	128	--	--	42	--	--	--	--	--
20...	1345	970	--	133	--	--	38	--	--	--	--	--
20...	1355	755	--	139	--	--	28	--	--	--	--	--
20...	1405	540	--	144	--	--	33	--	--	--	--	--
20...	1425	325	--	151	--	--	38	--	--	--	--	--
20...	1435	110	--	150	--	--	42	--	--	--	--	--
20...	2235	3590	--	170	--	--	135	--	--	--	--	--
20...	2240	3375	--	150	--	--	135	--	--	--	--	--
20...	2246	3160	--	142	--	--	155	--	--	--	--	--
20...	2250	2945	--	129	--	--	160	--	--	--	--	--
20...	2257	2730	--	126	--	--	150	--	--	--	--	--
20...	2259	2515	--	124	--	--	155	--	--	--	--	--
20...	2300	--	156000	145	7.4	1.5	115	12.6	--	--	50	--
20...	2317	1185	--	124	--	--	125	--	--	--	--	--
20...	2322	970	--	125	--	--	115	--	--	--	--	--
20...	2328	755	--	129	--	--	85	--	--	--	--	--
20...	2331	540	--	136	--	--	65	--	--	--	--	--
20...	2336	325	--	143	--	--	42	--	--	--	--	--
20...	2341	110	--	142	--	--	55	--	--	--	--	--
21...	1205	3590	--	162	--	--	185	--	--	--	--	--
21...	1222	3375	--	125	--	--	125	--	--	--	--	--
21...	1235	3160	--	114	--	--	120	--	--	--	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
FEB												
21...	1245	2945	--	101	--	--	125	--	--	--	--	--
21...	1300	2730	--	97	--	--	95	--	--	--	--	--
21...	1315	2515	--	96	--	--	120	--	--	--	--	--
21...	1355	--	231000	114	7.4	4.0	130	9.0	--	--	42	--
21...	1415	1185	--	97	--	--	115	--	--	--	--	--
21...	1425	970	--	104	--	--	110	--	--	--	--	--
21...	1440	755	--	114	--	--	100	--	--	--	--	--
21...	1455	540	--	126	--	--	80	--	--	--	--	--
21...	1505	325	--	139	--	--	85	--	--	--	--	--
21...	1520	110	--	140	--	--	85	--	--	--	--	--
22...	0710	3590	--	146	--	--	110	--	--	--	--	--
22...	0715	3375	--	121	--	--	115	--	--	--	--	--
22...	0720	3160	--	99	--	--	120	--	--	--	--	--
22...	0730	2945	--	86	--	--	120	--	--	--	--	--
22...	0735	2730	--	85	--	--	110	--	--	--	--	--
22...	0745	2515	--	88	--	--	115	--	--	--	--	--
22...	0800	--	250000	113	7.3	4.0	105	11.8	--	--	37	--
22...	0820	110	--	130	--	--	75	--	--	--	--	--
22...	0830	325	--	126	--	--	75	--	--	--	--	--
22...	0835	540	--	118	--	--	85	--	--	--	--	--
22...	0850	755	--	110	--	--	90	--	--	--	--	--
22...	0900	970	--	101	--	--	100	--	--	--	--	--
22...	0905	1185	--	91	--	--	110	--	--	--	--	--
23...	0900	3590	--	145	--	--	39	--	--	--	--	--
23...	0910	3375	--	115	--	--	41	--	--	--	--	--
23...	0920	3160	--	95	--	--	42	--	--	--	--	--
23...	0930	2945	--	87	--	--	43	--	--	--	--	--
23...	0932	2730	--	87	--	--	49	--	--	--	--	--
23...	0935	2515	--	92	--	--	75	--	--	--	--	--
23...	0945	--	224000	113	7.3	5.0	85	12.0	--	--	39	--
23...	1005	110	--	126	--	--	105	--	--	--	--	--
23...	1010	325	--	122	--	--	115	--	--	--	--	--
23...	1015	540	--	116	--	--	120	--	--	--	--	--
23...	1025	755	--	111	--	--	115	--	--	--	--	--
23...	1030	970	--	103	--	--	100	--	--	--	--	--
23...	1040	1185	--	98	--	--	85	--	--	--	--	--
24...	0855	3590	--	137	--	--	190	--	--	--	--	--
24...	0913	3375	--	110	--	--	230	--	--	--	--	--
24...	0915	3160	--	113	--	--	180	--	--	--	--	--
24...	0921	2945	--	101	--	--	140	--	--	--	--	--
24...	0930	2730	--	94	--	--	95	--	--	--	--	--
24...	0940	2515	--	92	--	--	65	--	--	--	--	--
24...	0950	--	276000	101	7.2	5.0	110	12.4	--	--	40	--
24...	1005	1185	--	93	--	--	65	--	--	--	--	--
24...	1013	970	--	97	--	--	46	--	--	--	--	--
24...	1020	755	--	106	--	--	75	--	--	--	--	--
24...	1034	540	--	111	--	--	80	--	--	--	--	--
24...	1044	325	--	121	--	--	120	--	--	--	--	--
24...	1046	110	--	118	--	--	140	--	--	--	--	--
25...	0830	3590	--	141	--	--	110	--	--	--	--	--
25...	0835	3375	--	120	--	--	110	--	--	--	--	--
25...	0845	3160	--	107	--	--	90	--	--	--	--	--
25...	0850	2945	--	95	--	--	80	--	--	--	--	--
25...	0855	2730	--	92	--	--	49	--	--	--	--	--
25...	0900	2515	--	92	--	--	49	--	--	--	--	--
25...	0920	--	275000	106	7.3	5.5	85	12.4	--	--	34	--
25...	0930	1185	--	95	--	--	46	--	--	--	--	--
25...	0935	970	--	103	--	--	44	--	--	--	--	--
25...	0940	755	--	114	--	--	46	--	--	--	--	--
25...	0950	540	--	122	--	--	44	--	--	--	--	--
25...	0955	325	--	134	--	--	43	--	--	--	--	--
25...	1005	110	--	136	--	--	43	--	--	--	--	--
26...	0820	3590	--	160	--	--	30	--	--	--	--	--
26...	0825	3375	--	130	--	--	27	--	--	--	--	--
26...	0830	3160	--	109	--	--	24	--	--	--	--	--
26...	0835	2945	--	99	--	--	26	--	--	--	--	--
26...	0840	2730	--	99	--	--	31	--	--	--	--	--
26...	0845	2515	--	102	--	--	43	--	--	--	--	--
26...	0900	--	208000	114	7.3	5.0	75	12.8	--	--	34	--
26...	0910	1185	--	107	--	--	80	--	--	--	--	--
26...	0915	970	--	113	--	--	85	--	--	--	--	--
26...	0920	755	--	120	--	--	100	--	--	--	--	--
26...	0925	540	--	124	--	--	115	--	--	--	--	--
26...	0930	325	--	135	--	--	110	--	--	--	--	--
26...	0935	110	--	135	--	--	105	--	--	--	--	--
27...	0835	3590	--	161	--	--	17	--	--	--	--	--
27...	0840	3375	--	130	--	--	15	--	--	--	--	--
27...	0850	3160	--	109	--	--	15	--	--	--	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
FEB												
27...	0855	2945	--	99	--	--	13	--	--	--	--	--
27...	0905	2730	--	99	--	--	15	--	--	--	--	--
27...	0910	2515	--	106	--	--	20	--	--	--	--	--
27...	0925	--	151000	123	7.3	5.0	27	12.0	--	--	44	--
27...	0940	1185	--	111	--	--	24	--	--	--	--	--
27...	0945	970	--	121	--	--	34	--	--	--	--	--
27...	0955	755	--	129	--	--	38	--	--	--	--	--
27...	1000	540	--	136	--	--	43	--	--	--	--	--
27...	1010	325	--	146	--	--	41	--	--	--	--	--
27...	1015	110	--	150	--	--	37	--	--	--	--	--
MAR												
02...	0830	3590	--	206	--	--	11	--	--	--	--	--
02...	0835	3375	--	155	--	--	11	--	--	--	--	--
02...	0845	3160	--	130	--	--	12	--	--	--	--	--
02...	0850	2945	--	121	--	--	13	--	--	--	--	--
02...	0855	2730	--	121	--	--	12	--	--	--	--	--
02...	0905	2515	--	123	--	--	14	--	--	--	--	--
02...	0920	--	74300	142	7.3	4.5	--	12.0	K60	24	49	29
02...	0940	1185	--	128	--	--	14	--	--	--	--	--
02...	0945	970	--	138	--	--	15	--	--	--	--	--
02...	0950	755	--	148	--	--	16	--	--	--	--	--
02...	1000	540	--	160	--	--	17	--	--	--	--	--
02...	1005	325	--	176	--	--	16	--	--	--	--	--
02...	1010	110	--	181	--	--	15	--	--	--	--	--
10...	0910	--	29100	212	7.7	4.0	4.0	10.8	--	--	--	--
18...	0955	--	22100	186	8.0	2.5	4.0	13.6	--	--	--	--
25...	0915	--	16500	254	8.0	6.5	4.0	12.6	--	--	--	--
APR												
01...	0925	--	16800	261	8.5	13.0	3.5	13.2	K1	260	110	--
MAY												
04...	1000	--	53100	151	7.8	13.5	1.5	10.0	87	440	58	--
JUN												
01...	1015	--	17400	232	8.1	22.5	3.9	9.2	--	--	92	--
JUL												
06...	1115	--	22200	249	8.5	24.0	2.8	10.8	--	--	100	--
AUG												
03...	1120	--	11600	278	8.4	25.0	4.0	11.2	K130	600	110	--
SEP												
01...	1100	--	4560	315	8.2	22.0	.40	8.0	110	69	130	--

K = Results based on non-ideal colony count.

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ACIDITY (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
OCT												
01...	.0	45	15	16	16	.5	2.5	66	110	22	.2	.4
07...	.0	--	--	--	--	--	--	63	--	--	--	--
14...	.0	--	--	--	--	--	--	78	96	--	--	--
21...	.0	--	--	--	--	--	--	74	--	--	--	--
25...	4.0	41	14	15	17	.5	2.8	64	94	22	.2	.0
30...	.5	--	--	--	--	--	--	49	--	--	--	--
NOV												
03...	.0	38	11	14	18	.5	2.6	60	78	21	<.1	1.7
12...	.5	--	--	--	--	--	--	42	77	--	--	--
18...	.0	--	--	--	--	--	--	49	--	--	--	--
24...	.5	35	11	13	17	.5	2.3	42	82	23	.2	.2
24...	2.0	32	9.0	12	18	.5	2.2	60	63	18	.1	.3
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	2.0	32	8.9	12	18	.5	1.9	45	60	17	.1	.5
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
26...	.5	31	9.3	12	18	.5	2.4	60	59	16	.1	1.1
27...	.5	31	8.6	11	17	.5	2.3	45	53	16	.1	1.5
29...	.5	29	8.6	11	18	.5	1.9	42	61	13	.1	2.6
DEC												
02...	.5	28	8.0	9.0	16	.4	1.9	50	47	16	.1	3.3
09...	1.0	--	--	--	--	--	--	35	--	--	--	--
15...	1.0	--	--	--	--	--	--	32	45	--	--	--
22...	.5	--	--	--	--	--	--	51	--	--	--	--
31...	.5	--	--	--	--	--	--	66	--	--	--	--
JAN												
19...	.5	38	11	14	18	.5	2.0	56	74	20	.1	.6
29...	.0	--	--	--	--	--	--	55	--	--	--	--
FEB												
10...	.0	25	11	8.1	14	.3	2.4	39	59	20	<.1	1.7
12...	.0	12	2.9	5.5	21	.4	2.4	20	23	12	<.1	3.1
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--

BEST DOCUMENT AVAILABLE

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	.0	11	2.6	4.6	20	.3	2.2	11	20	8.9	<.1	3.1
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	.0	12	2.9	4.8	19	.3	2.3	8	23	9.5	<.1	3.2
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	.5	13	3.3	6.6	23	.4	2.3	12	22	12	<.1	3.5
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	.5	15	4.0	5.3	17	.3	1.7	18	30	9.1	<.1	4.6
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	2.0	--	--	--	--	--	--	22	27	8.8	<.1	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	.5	14	3.6	4.6	16	.3	1.5	20	28	9.4	<.1	4.3
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB												
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	.5	12	2.9	3.8	16	.3	1.5	17	22	7.0	<.1	4.2
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	.5	10	2.8	4.3	20	.3	1.4	15	21	6.7	<.1	4.3
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	.5	11	2.8	3.7	16	.3	1.4	15	21	6.9	<.1	4.3
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	4.0	11	3.0	3.6	16	.2	1.6	16	20	6.1	<.1	4.8
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	.5	9.2	2.6	3.1	16	.2	1.4	15	19	5.5	<.1	4.6
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	1.0	8.8	2.9	3.5	18	.3	1.4	16	21	6.1	<.1	4.6
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	2.0	12	3.3	3.5	15	.2	1.1	17	25	6.2	<.1	4.9
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	1.0	14	3.5	3.7	14	.2	1.2	20	29	6.5	<.1	4.8
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
10...	1.0	--	--	--	--	--	--	34	--	--	--	--
18...	1.0	--	--	--	--	--	--	44	44	--	--	--
25...	2.0	--	--	--	--	--	--	32	--	--	--	--
APR												
01...	.0	29	8.5	7.9	14	.3	1.6	--	51	13	.1	1.2
MAY												
04...	10	16	4.4	4.7	15	.3	1.2	--	29	6.8	<.1	3.8
JUN												
01...	--	26	6.6	6.9	14	.3	1.8	--	40	9.8	<.1	2.8
JUL												
06...	--	29	7.4	6.0	11	.3	1.7	--	42	11	<.1	2.7
AUG												
03...	--	31	9.0	10	16	.4	1.9	--	52	10	.1	3.3
SEP												
01...	--	33	11	12	17	.5	2.0	--	56	18	.1	1.8

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
OCT												
01...	263	252	.36	2410	.36	.31	.010	.010	.37	.32	.030	.030
07...	280	--	.38	2820	.49	.48	.000	.010	.49	.49	.040	.040
14...	270	--	.37	2430	.61	.56	.010	.010	.62	.57	.050	.050
21...	--	--	--	--	.64	.57	.010	.010	.65	.58	.010	.010
25...	--	--	--	--	.66	.65	.020	.020	.68	.67	.030	.020
30...	--	--	--	--	.85	.84	.010	.010	.86	.85	.050	.020
NOV												
03...	221	206	.30	5090	.87	.87	.010	.010	.88	.88	.080	.020
12...	218	--	.30	3060	.94	.94	.010	.010	.95	.95	.080	.080
18...	212	--	.29	4190	.93	.92	.010	.010	.94	.93	.100	.040
24...	211	--	.29	4380	.86	.85	.010	.010	.87	.86	.040	.100
24...	107	--	.15	2620	.30	.30	.010	.010	.31	.31	.010	.010
25...	--	--	--	--	2.8	--	.030	--	2.8	--	.090	--
25...	--	--	--	--	2.4	--	.030	--	2.4	--	.060	--
25...	--	--	--	--	.74	--	.010	--	.75	--	<.010	--
25...	--	--	--	--	.64	--	.010	--	.65	--	<.010	--
25...	--	--	--	--	.59	--	<.010	--	.59	--	<.010	--
25...	--	--	--	--	.60	--	<.010	--	.60	--	<.010	--
25...	--	--	--	--	.60	--	<.010	--	.60	--	<.010	--
25...	--	--	--	--	.97	.97	.010	.010	.98	.98	.040	.040
25...	--	--	--	--	.64	--	.010	--	.65	--	<.010	--
25...	--	--	--	--	.75	--	.010	--	.76	--	<.010	--
25...	--	--	--	--	.93	--	.010	--	.94	--	<.010	--
25...	--	--	--	--	1.1	--	.010	--	1.1	--	.040	--
25...	--	--	--	--	.99	--	.010	--	1.0	--	<.010	--
26...	--	--	--	--	1.3	1.30	.010	.010	1.3	1.3	.030	<.010
27...	--	--	--	--	1.4	1.40	.010	.010	1.4	1.4	.030	.020
29...	--	--	--	--	1.2	1.20	.010	.010	1.2	1.2	.120	.120
DEC												
02...	160	149	.22	8120	1.2	1.20	.010	.010	1.2	1.2	.100	.080
09...	122	--	.17	6090	.91	.91	.010	.010	.92	.92	.060	.060
15...	138	--	.19	7300	.96	.93	.010	.010	.97	.94	.030	.030
22...	180	--	.24	3230	1.6	1.60	.020	.010	1.6	1.6	.090	.090
31...	210	--	.29	5280	1.5	1.50	.020	<.010	1.5	1.5	.110	.090
JAN												
19...	219	199	.30	4680	1.3	1.30	.020	.020	1.3	1.3	.180	.170
29...	195	--	.27	3560	1.2	1.20	.020	.020	1.2	1.2	.100	.100
FEB												
10...	178	157	.24	8940	1.4	1.40	.020	.020	1.4	1.4	.360	.360
12...	89	--	.12	43700	1.4	1.30	.040	.010	1.4	1.3	.300	.220
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--

BEST DOCUMENT AVAILABLE

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
FEB												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	79	--	.11	29200	1.1	1.10	.030	<.010	1.1	1.1	.250	.190
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	86	--	.12	30200	1.1	1.10	.020	<.010	1.1	1.1	.250	.210
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	88	--	.12	25200	1.2	1.20	.020	<.010	1.2	1.2	.300	.230
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	91	--	.12	12300	1.1	1.10	.010	.010	1.1	1.1	.130	.130
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	1.8	--	.020	--	1.8	--	.110	--
20...	--	--	--	--	1.1	--	.010	--	1.1	--	.070	--
20...	--	--	--	--	.91	--	<.010	--	.91	--	.070	--
20...	--	--	--	--	.88	--	<.010	--	.88	--	.070	--
20...	--	--	--	--	.87	--	<.010	--	.87	--	.070	--
20...	--	--	--	--	.95	--	<.010	--	.95	--	.080	--
20...	--	--	--	--	1.1	1.10	.010	<.010	1.1	1.1	.100	.090
20...	--	--	--	--	1.3	--	.010	--	1.3	--	.100	--
20...	--	--	--	--	1.3	--	.020	--	1.3	--	.120	--
20...	--	--	--	--	1.2	--	.010	--	1.2	--	.090	--
20...	--	--	--	--	1.3	--	.020	--	1.3	--	.200	--
20...	--	--	--	--	1.5	--	.010	--	1.5	--	.220	--
20...	--	--	--	--	1.5	--	.010	--	1.5	--	.120	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	1.3	1.30	.010	<.010	1.3	1.3	.080	.070
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	2.8	--	.030	--	2.8	--	.150	--
21...	--	--	--	--	1.8	--	.020	--	1.8	--	.090	--
21...	--	--	--	--	1.6	--	.020	--	1.6	--	.080	--

BEST DOCUMENT AVAILABLE

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MC/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
FEB												
21...	--	--	--	--	1.3	--	.020	--	1.3	--	.070	--
21...	--	--	--	--	.94	--	<.010	--	.94	--	.070	--
21...	--	--	--	--	.82	--	<.010	--	.82	--	.050	--
21...	--	--	--	--	1.3	1.30	.020	<.010	1.3	1.3	.070	.040
21...	--	--	--	--	.82	--	<.010	--	.82	--	.050	--
21...	--	--	--	--	.90	--	<.010	--	.90	--	.060	--
21...	--	--	--	--	1.0	--	<.010	--	1.0	--	.080	--
21...	--	--	--	--	1.1	--	.010	--	1.1	--	.090	--
21...	--	--	--	--	1.3	--	.010	--	1.3	--	.110	--
21...	--	--	--	--	1.6	--	.010	--	1.6	--	.120	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	1.1	1.10	.010	<.010	1.1	1.1	.070	.040
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	.98	.98	.020	.020	1.0	1.0	.070	.040
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	1.4	1.30	.030	<.010	1.4	.13	.090	.090
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	1.2	1.20	.020	.020	1.2	1.2	.100	.100
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	1.2	1.20	.010	<.010	1.2	1.2	.080	.030
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	77	--	.10	31400	.99	.99	.010	<.010	1.0	1.0	.190	.080
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	98	80	.13	19700	1.1	1.10	.010	.010	1.1	1.1	.160	.110
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
10...	117	--	.16	9190	1.4	1.40	.010	.010	1.4	1.4	.130	.130
18...	134	--	.18	8000	1.3	1.30	.010	.010	1.3	1.3	.140	.090
25...	151	--	.21	6730	1.1	1.10	.020	.010	1.1	1.1	.080	.060
APR												
01...	152	144	.21	6900	--	--	--	--	.95	.95	.050	.040
MAY												
04...	97	83	.13	13900	--	--	--	--	.62	.62	.070	.070
JUN												
01...	170	131	.23	7990	--	--	--	--	.81	.81	.050	.040
JUL												
06...	152	132	.21	9110	--	--	--	--	.95	.95	.020	.020
AUG												
03...	177	152	.24	5540	--	--	--	--	.70	.70	.020	.020
SEP												
01...	205	183	.28	2520	--	--	--	--	.36	.36	.060	.060

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT												
01...	.34	.18	.37	.16	.21	.74	.53	.040	.010	<.010	<.010	4.2
07...	.26	<.01	.30	.30	.04	.79	.49	.050	.020	.010	.010	--
14...	.44	.25	.49	.19	.30	1.1	.87	.040	.020	.030	.010	--
21...	.88	.30	.89	.58	.31	1.5	.89	.050	.010	.010	.010	--
25...	.21	.21	.24	.01	.23	.92	.90	.070	.010	.020	<.010	--
30...	.57	.16	.62	.44	.18	1.5	1.0	.060	.010	.020	.010	--
NOV												
03...	.41	.20	.49	.27	.22	1.4	1.1	.070	.020	<.010	<.010	9.8
12...	.34	.08	.42	.26	.16	1.4	1.1	.050	.030	.040	.020	--
18...	.39	.39	.49	.06	.43	1.4	1.4	.040	.020	.030	.020	--
24...	.39	.07	.43	.26	.17	1.3	1.1	.060	.020	.040	.020	--
24...	.22	.23	.23	.00	.23	.54	.54	.020	.010	.010	<.010	--
25...	.31	--	.40	--	--	3.2	--	.210	--	.150	--	3.9
25...	.40	--	.46	--	--	2.9	--	.190	--	.120	--	4.7
25...	.18	--	.18	--	--	.93	--	.030	--	.020	--	3.9
25...	.19	--	.19	--	--	.84	--	.030	--	.020	--	2.0
25...	.14	--	.14	--	--	.73	--	.010	--	.010	--	1.5
25...	.18	--	.18	--	--	.78	--	.020	--	.010	--	1.7
25...	.32	--	.32	--	--	.92	--	.020	--	.000	--	1.4
25...	.45	.18	.49	.27	.22	1.5	1.2	.050	.020	.020	.010	--
25...	.24	--	.24	--	--	.89	--	.020	--	<.010	--	5.0
25...	.21	--	.21	--	--	.97	--	.030	--	.010	--	3.7
25...	.29	--	.29	--	--	1.2	--	.050	--	.020	--	3.2
25...	.20	--	.24	--	--	1.3	--	.050	--	.020	--	6.1
25...	.35	--	.35	--	--	1.4	--	.060	--	.020	--	7.1
26...	.34	.33	.37	.04	.33	1.7	1.6	.060	.020	.020	<.010	--
27...	.45	.28	.48	.18	.30	1.9	1.7	.060	.020	.020	.010	--
29...	.78	.09	.90	.69	.21	2.1	1.4	.140	.020	.020	.010	--
DEC												
02...	.32	.14	.42	.20	.22	1.6	1.4	.060	.020	.020	.010	3.2
09...	.33	.11	.39	.22	.17	1.3	1.1	.050	.010	.010	.010	--
15...	.21	.05	.24	.16	.08	1.2	1.0	.040	.010	<.010	<.010	--
22...	.31	.30	.40	.01	.39	2.0	2.0	.070	.060	.040	.050	--
31...	.33	.26	.44	.09	.35	1.9	1.8	.050	.030	.010	.010	--
JAN												
19...	.35	.30	.53	.06	.47	1.8	1.8	.050	.020	.030	<.010	--
29...	.21	.01	.31	.20	.11	1.5	1.3	.040	.020	.010	<.010	--
FEB												
10...	.29	.19	.65	.10	.55	2.0	2.0	.090	.050	.030	.030	4.0
12...	1.1	.53	1.40	.65	.75	2.8	2.1	.580	.040	.110	.020	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--

BEST DOCUMENT AVAILABLE

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DISSOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	1.1	.65	1.30	.46	.84	2.4	1.9	.590	.080	.110	.020	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	1.2	.58	1.40	.61	.79	2.5	1.9	.340	.050	.110	.020	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	1.2	.23	1.50	1.0	.46	2.7	1.7	.270	.040	.090	.060	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	.48	.22	.61	.26	.35	1.7	1.5	.120	.040	.040	.020	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
20...	.55	--	.66	--	--	2.5	--	.140	--	.060	--	3.9
20...	.43	--	.50	--	--	1.6	--	.110	--	.020	--	6.5
20...	.53	--	.60	--	--	1.5	--	.110	--	.020	--	6.6
20...	.65	--	.72	--	--	1.6	--	.140	--	.010	--	7.9
20...	.60	--	.67	--	--	1.5	--	.160	--	.010	--	3.1
20...	.67	--	.75	--	--	1.7	--	.170	--	.010	--	6.6
20...	.69	.22	.79	.48	.31	1.9	1.4	.180	.020	.020	.010	--
20...	.88	--	.98	--	--	2.3	--	.160	--	.020	--	6.4
20...	.77	--	.89	--	--	2.2	--	.170	--	.030	--	6.5
20...	.73	--	.82	--	--	2.0	--	.140	--	.050	--	4.9
20...	.54	--	.74	--	--	2.0	--	.140	--	.050	--	4.7
20...	.49	--	.71	--	--	2.2	--	.120	--	.020	--	6.0
20...	.80	--	.92	--	--	2.4	--	.150	--	.040	--	6.0
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	1.7	.22	1.80	1.5	.29	3.1	1.6	.340	.020	.020	<.010	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	1.4	--	1.50	--	--	4.3	--	.420	--	.080	--	17
21...	1.5	--	1.60	--	--	3.4	--	.260	--	.060	--	11
21...	1.1	--	1.20	--	--	2.8	--	.290	--	.040	--	9.8

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA-Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB												
21...	1.2	--	1.30	--	--	2.6	--	.280	--	.040	--	10
21...	1.1	--	1.20	--	--	2.1	--	.240	--	.020	--	16
21...	1.7	--	1.70	--	--	2.5	--	.320	--	.010	--	12
21...	1.5	.44	1.60	1.1	.48	2.9	1.8	.360	.020	.040	<.010	--
21...	1.4	--	1.40	--	--	2.2	--	.360	--	<.010	--	8.7
21...	1.3	--	1.40	--	--	2.3	--	.290	--	.010	--	10
21...	1.5	--	1.60	--	--	2.6	--	.370	--	.020	--	11
21...	1.1	--	1.20	--	--	2.3	--	.360	--	.020	--	8.9
21...	1.1	--	1.20	--	--	2.5	--	.340	--	.020	--	7.3
21...	1.4	--	1.50	--	--	3.1	--	.400	--	.020	--	6.3
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	1.2	.20	1.30	1.1	.24	2.4	1.3	.270	.010	.030	<.010	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	1.0	.31	1.10	.75	.35	2.1	1.4	.180	.030	.050	.020	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	.88	.25	.97	.63	.34	2.4	1.6	.210	.020	.070	<.010	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	1.7	.23	1.80	1.5	.33	3.0	1.5	.290	.060	.110	.020	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	.48	.21	.56	.32	.24	1.8	1.4	.130	<.010	.040	<.010	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--

BEST DOCUMENT AVAILABLE

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	.21	.13	.40	.19	.21	1.4	1.2	.080	<.010	.020	.010	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	.29	.24	.45	.10	.35	1.6	1.5	.050	.010	.020	.010	5.3
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
10...	.47	.10	.60	.37	.23	2.0	1.6	.030	.030	.030	.030	--
18...	.13	.13	.27	.05	.22	1.6	1.5	.040	<.010	.010	<.010	--
25...	.34	.03	.42	.32	<.10	1.5	1.2	.020	<.010	.010	<.010	--
APR												
01...	.51	.27	.56	.25	.31	1.5	1.3	.070	.030	--	--	2.4
MAY												
04...	.38	.37	.45	.01	.44	1.1	1.1	.070	.010	--	--	--
JUN												
01...	.80	.36	.85	.45	.40	1.7	1.2	.110	.040	--	--	5.1
JUL												
06...	.65	--	.67	--	<.10	1.6	--	.070	.020	--	--	--
AUG												
03...	.55	.40	.57	.15	.42	1.3	1.1	.070	.050	--	--	5.6
SEP												
01...	1.2	.70	1.30	.54	.76	1.7	1.1	.090	.040	--	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CARBON, INOR- GANIC, DIS- SOLVED (MG/L AS C)	TRITIUM IN WATER MOLE- CULES (TU)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB											
13...	--	--	--	--	--	--	--	--	155	--	--
13...	--	--	--	--	--	--	--	--	220	--	--
13...	--	--	--	--	--	--	--	--	265	--	--
13...	5.2	>4.0	--	--	--	--	26.5	2.15	303	112000	--
13...	--	--	--	--	--	--	--	--	291	--	--
13...	--	--	--	--	--	--	--	--	391	--	--
13...	--	--	--	--	--	--	--	--	392	--	--
13...	--	--	--	--	--	--	--	--	500	--	--
13...	--	--	--	--	--	--	--	--	445	--	--
13...	--	--	--	--	--	--	--	--	370	--	--
13...	--	--	--	--	--	--	--	--	137	--	--
13...	--	--	--	--	--	--	--	--	148	--	--
13...	--	--	--	--	--	--	--	--	180	--	--
13...	--	--	--	--	--	--	--	--	237	--	--
13...	--	--	--	--	--	--	--	--	379	--	--
13...	14	>4.0	--	--	--	--	26.6	.950	237	83200	--
13...	--	--	--	--	--	--	--	--	288	--	--
13...	--	--	--	--	--	--	--	--	278	--	--
13...	--	--	--	--	--	--	--	--	258	--	--
13...	--	--	--	--	--	--	--	--	236	--	--
13...	--	--	--	--	--	--	--	--	250	--	--
13...	--	--	--	--	--	--	--	--	245	--	--
13...	--	--	--	--	--	--	--	--	193	--	--
14...	--	--	--	--	--	--	--	--	90	--	--
14...	--	--	--	--	--	--	--	--	83	--	--
14...	--	--	--	--	--	--	--	--	80	--	--
14...	--	--	--	--	--	--	--	--	99	--	--
14...	--	--	--	--	--	--	--	--	132	--	--
14...	--	--	--	--	--	--	--	--	128	--	--
14...	--	--	--	--	--	--	18.0	2.10	156	44600	--
14...	--	--	--	--	--	--	--	--	162	--	--
14...	--	--	--	--	--	--	--	--	191	--	--
14...	--	--	--	--	--	--	--	--	237	--	--
14...	--	--	--	--	--	--	--	--	211	--	--
14...	--	--	--	--	--	--	--	--	262	--	--
14...	--	--	--	--	--	--	--	--	238	--	--
18...	--	--	--	--	--	--	--	--	6	--	--
18...	--	--	--	--	--	--	--	--	18	--	--
18...	--	--	--	--	--	--	--	--	29	--	--
18...	--	--	--	--	--	--	--	--	33	--	--
18...	--	--	--	--	--	--	--	--	49	--	--
18...	--	--	--	--	--	--	--	--	76	--	--
18...	--	--	--	--	--	--	--	--	90	--	--
18...	--	--	--	--	--	--	--	--	107	--	--
18...	--	--	--	--	--	--	--	--	110	--	--
18...	--	--	--	--	--	--	--	--	97	--	--
18...	2.5	1.8	--	--	--	--	5.74	.000	68	9160	--
18...	--	--	--	--	--	--	--	--	83	--	--
18...	--	--	--	--	--	--	--	--	74	--	--
20...	--	--	--	--	--	--	--	--	120	--	--
20...	--	--	--	--	--	--	--	--	72	--	--
20...	--	--	--	--	--	--	--	--	121	--	--
20...	--	--	--	--	--	--	--	--	142	--	--
20...	--	--	--	--	--	--	--	--	168	--	--
20...	--	--	--	--	--	--	--	--	202	--	--
20...	1.6	.4	--	--	--	--	8.63	.250	150	40900	--
20...	--	--	--	--	--	--	--	--	195	--	--
20...	--	--	--	--	--	--	--	--	208	--	--
20...	--	--	--	--	--	--	--	--	178	--	--
20...	--	--	--	--	--	--	--	--	168	--	--
20...	--	--	--	--	--	--	--	--	160	--	--
20...	--	--	--	--	--	--	--	--	200	--	--
20...	--	--	--	--	--	--	--	--	268	--	--
20...	--	--	--	--	--	--	--	--	307	--	--
20...	--	--	--	--	--	--	--	--	337	--	--
20...	--	--	--	--	--	--	--	--	386	--	--
20...	--	--	--	--	--	--	--	--	419	--	--
20...	--	--	--	--	--	--	--	--	376	--	--
20...	1.6	.5	--	--	--	--	23.4	1.33	333	140000	--
20...	--	--	--	--	--	--	--	--	329	--	--
20...	--	--	--	--	--	--	--	--	291	--	--
20...	--	--	--	--	--	--	--	--	231	--	--
20...	--	--	--	--	--	--	--	--	189	--	--
20...	--	--	--	--	--	--	--	--	170	--	--
20...	--	--	--	--	--	--	--	--	162	--	--
21...	--	--	--	--	--	--	--	--	365	--	--
21...	--	--	--	--	--	--	--	--	291	--	--
21...	--	--	--	--	--	--	--	--	328	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CARBON, INORGANIC, DISSOLVED (MG/L AS C)	TRITIUM IN WATER MOLECULES (TU)	TRITIUM WATER MOLECULES COUNT ERROR (TU)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
01...	--	--	--	40.2	1.6	--	19.3	4.73	13	119	68
07...	--	--	--	--	--	--	--	--	12	121	--
14...	4.7	1.1	--	--	--	--	11.9	.000	4	36	--
21...	--	--	--	--	--	--	--	--	12	110	--
25...	4.6	2.1	17	--	--	--	14.7	2.48	5	60	--
30...	--	--	--	--	--	--	--	--	12	310	--
NOV											
03...	7.7	2.1	15	40.8	1.7	39000	17.6	1.76	21	484	85
12...	--	--	--	--	--	--	--	--	2	28	--
18...	3.3	.5	--	--	--	--	2.59	.000	1	20	--
24...	--	--	--	--	--	--	--	--	1	21	--
24...	--	--	--	--	--	--	6.21	.620	1	24	--
25...	--	--	--	--	--	--	--	--	12	--	--
25...	--	--	--	--	--	--	--	--	24	--	--
25...	--	--	--	--	--	--	--	--	1	--	--
25...	--	--	--	--	--	--	--	--	1	--	--
25...	--	--	--	--	--	--	--	--	1	--	--
25...	--	--	--	--	--	--	--	--	1	--	--
25...	--	--	--	--	--	--	--	--	2	--	--
25...	3.9	1.0	15	--	--	--	5.20	.420	6	164	--
25...	--	--	--	--	--	--	--	--	1	--	--
25...	--	--	--	--	--	--	--	--	1	--	--
25...	--	--	--	--	--	--	--	--	1	--	--
25...	--	--	--	--	--	--	--	--	1	--	--
25...	--	--	--	--	--	--	--	--	16	--	--
26...	4.1	.9	14	--	--	--	5.18	1.24	7	255	--
27...	10	1.1	14	--	--	--	6.55	2.11	9	372	--
29...	5.1	3.7	13	--	--	--	19.0	7.85	46	2980	--
DEC											
02...	1.8	1.4	11	38.8	1.7	--	5.50	2.26	14	711	86
09...	--	--	--	--	--	--	--	--	8	400	--
15...	2.2	.8	--	--	--	--	.920	.000	6	318	--
22...	--	--	--	--	--	--	--	--	4	72	--
31...	2.5	1.0	--	--	--	--	1.92	.000	7	176	--
JAN											
19...	1.3	.7	--	41.3	1.8	--	2.87	.000	6	128	57
29...	2.2	.6	--	--	--	--	3.43	.000	5	91	--
FEB											
10...	3.2	.8	10	40.1	1.5	--	6.07	.000	15	753	74
12...	6.8	>4.0	--	--	--	--	34.3	.390	447	220000	--
13...	--	--	--	--	--	--	--	--	203	--	--
13...	--	--	--	--	--	--	--	--	173	--	--
13...	--	--	--	--	--	--	--	--	156	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CARBON, INOR- GANIC, DIS- SOLVED (MG/L AS C)	TRITIUM IN WATER MOLE- CULES (TU)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB											
21...	--	--	--	--	--	--	--	--	332	--	--
21...	--	--	--	--	--	--	--	--	456	--	--
21...	--	--	--	--	--	--	--	--	356	--	--
21...	7.1	.4	--	--	--	--	19.0	.120	348	217000	--
21...	--	--	--	--	--	--	--	--	400	--	--
21...	--	--	--	--	--	--	--	--	379	--	--
21...	--	--	--	--	--	--	--	--	348	--	--
21...	--	--	--	--	--	--	--	--	332	--	--
21...	--	--	--	--	--	--	--	--	288	--	--
21...	--	--	--	--	--	--	--	--	268	--	--
22...	--	--	--	--	--	--	--	--	211	--	--
22...	--	--	--	--	--	--	--	--	269	--	--
22...	--	--	--	--	--	--	--	--	288	--	--
22...	--	--	--	--	--	--	--	--	312	--	--
22...	--	--	--	--	--	--	--	--	358	--	--
22...	--	--	--	--	--	--	--	--	315	--	--
22...	6.0	.8	--	--	--	--	15.6	.180	286	193000	--
22...	--	--	--	--	--	--	--	--	215	--	--
22...	--	--	--	--	--	--	--	--	252	--	--
22...	--	--	--	--	--	--	--	--	272	--	--
22...	--	--	--	--	--	--	--	--	270	--	--
22...	--	--	--	--	--	--	--	--	299	--	--
22...	--	--	--	--	--	--	--	--	299	--	--
23...	--	--	--	--	--	--	--	--	91	--	--
23...	--	--	--	--	--	--	--	--	108	--	--
23...	--	--	--	--	--	--	--	--	124	--	--
23...	--	--	--	--	--	--	--	--	129	--	--
23...	--	--	--	--	--	--	--	--	183	--	--
23...	--	--	--	--	--	--	--	--	184	--	--
23...	1.8	.3	--	--	--	--	11.0	.000	199	120000	--
23...	--	--	--	--	--	--	--	--	255	--	--
23...	--	--	--	--	--	--	--	--	303	--	--
23...	--	--	--	--	--	--	--	--	319	--	--
23...	--	--	--	--	--	--	--	--	296	--	--
23...	--	--	--	--	--	--	--	--	257	--	--
23...	--	--	--	--	--	--	--	--	213	--	--
24...	--	--	--	--	--	--	--	--	376	--	--
24...	--	--	--	--	--	--	--	--	449	--	--
24...	--	--	--	--	--	--	--	--	427	--	--
24...	--	--	--	--	--	--	--	--	299	--	--
24...	--	--	--	--	--	--	--	--	214	--	--
24...	--	--	--	--	--	--	--	--	132	--	--
24...	2.7	3.3	--	--	--	--	4.72	.000	274	204000	--
24...	--	--	--	--	--	--	--	--	149	--	--
24...	--	--	--	--	--	--	--	--	144	--	--
24...	--	--	--	--	--	--	--	--	185	--	--
24...	--	--	--	--	--	--	--	--	203	--	--
24...	--	--	--	--	--	--	--	--	310	--	--
24...	--	--	--	--	--	--	--	--	353	--	--
25...	--	--	--	--	--	--	--	--	199	--	--
25...	--	--	--	--	--	--	--	--	213	--	--
25...	--	--	--	--	--	--	--	--	203	--	--
25...	--	--	--	--	--	--	--	--	165	--	--
25...	--	--	--	--	--	--	--	--	174	--	--
25...	--	--	--	--	--	--	--	--	166	--	--
25...	3.3	2.2	--	--	--	--	2.37	.000	187	139000	--
25...	--	--	--	--	--	--	--	--	166	--	--
25...	--	--	--	--	--	--	--	--	149	--	--
25...	--	--	--	--	--	--	--	--	143	--	--
25...	--	--	--	--	--	--	--	--	139	--	--
25...	--	--	--	--	--	--	--	--	138	--	--
25...	--	--	--	--	--	--	--	--	131	--	--
26...	--	--	--	--	--	--	--	--	64	--	--
26...	--	--	--	--	--	--	--	--	82	--	--
26...	--	--	--	--	--	--	--	--	71	--	--
26...	--	--	--	--	--	--	--	--	75	--	--
26...	--	--	--	--	--	--	--	--	91	--	--
26...	--	--	--	--	--	--	--	--	114	--	--
26...	3.4	1.8	--	--	--	--	2.06	.000	160	89900	--
26...	--	--	--	--	--	--	--	--	151	--	--
26...	--	--	--	--	--	--	--	--	180	--	--
26...	--	--	--	--	--	--	--	--	230	--	--
26...	--	--	--	--	--	--	--	--	239	--	--
26...	--	--	--	--	--	--	--	--	227	--	--
26...	--	--	--	--	--	--	--	--	198	--	--
27...	--	--	--	--	--	--	--	--	47	--	--
27...	--	--	--	--	--	--	--	--	36	--	--
27...	--	--	--	--	--	--	--	--	45	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CARBON, INOR- GANIC, DIS- SOLVED (MG/L AS C)	TRITIUM IN WATER MOLE- CULES (TU)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB											
27...	--	--	--	--	--	--	--	--	46	--	--
27...	--	--	--	--	--	--	--	--	53	--	--
27...	--	--	--	--	--	--	--	--	63	--	--
27...	2.8	.9	--	--	--	--	1.13	.000	74	30200	--
27...	--	--	--	--	--	--	--	--	70	--	--
27...	--	--	--	--	--	--	--	--	87	--	--
27...	--	--	--	--	--	--	--	--	114	--	--
27...	--	--	--	--	--	--	--	--	101	--	--
27...	--	--	--	--	--	--	--	--	99	--	--
27...	--	--	--	--	--	--	--	--	90	--	--
MAR											
02...	--	--	--	--	--	--	--	--	21	--	--
02...	--	--	--	--	--	--	--	--	21	--	--
02...	--	--	--	--	--	--	--	--	29	--	--
02...	--	--	--	--	--	--	--	--	30	--	--
02...	--	--	--	--	--	--	--	--	25	--	--
02...	--	--	--	--	--	--	--	--	36	--	--
02...	2.5	2.8	5.6	37.2	1.6	26	1.25	.000	33	6620	81
02...	--	--	--	--	--	--	--	--	34	--	--
02...	--	--	--	--	--	--	--	--	41	--	--
02...	--	--	--	--	--	--	--	--	44	--	--
02...	--	--	--	--	--	--	--	--	39	--	--
02...	--	--	--	--	--	--	--	--	39	--	--
02...	--	--	--	--	--	--	--	--	35	--	--
10...	--	--	--	--	--	--	--	--	9	707	--
18...	1.1	.6	--	--	--	--	2.92	.000	8	477	--
25...	--	--	--	--	--	--	--	--	11	490	--
APR											
01...	--	--	--	41.0	1.8	--	--	--	9	408	85
MAY											
04...	9.2	1.4	--	44.9	1.8	2200	--	--	38	5450	74
JUN											
01...	--	--	--	--	--	35000	--	--	22	1030	97
JUL											
06...	3.8	1.0	--	--	--	28000	--	--	21	1260	96
AUG											
03...	--	--	--	44.2	1.9	24000	--	--	17	532	92
SEP											
01...	2.8	1.7	--	37.2	1.6	150000	--	--	17	209	67

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)
OCT												
01...	1120	--	3400	120	60	60	--	--	--	--	--	--
14...	1000	--	3330	--	--	--	--	--	--	--	--	--
25...	1445	--	4470	120	50	70	--	--	--	--	--	--
NOV												
03...	1040	--	8530	120	70	50	--	--	--	--	--	--
12...	0910	--	5200	--	--	--	--	--	--	--	--	--
24...	0905	--	7680	90	50	40	--	--	--	--	--	--
24...	2115	--	9050	120	80	40	--	--	--	--	--	--
25...	0920	3590	--	390	--	--	--	--	--	--	--	--
25...	0945	3375	--	480	--	--	--	--	--	--	--	--
25...	1000	3160	--	160	--	--	--	--	--	--	--	--
25...	1030	2945	--	50	--	--	--	--	--	--	--	--
25...	1055	2730	--	80	--	--	--	--	--	--	--	--
25...	1120	2515	--	120	--	--	--	--	--	--	--	--
25...	1200	1185	--	120	--	--	--	--	--	--	--	--
25...	1210	--	10100	180	150	30	--	--	--	--	--	--
25...	1220	970	--	100	--	--	--	--	--	--	--	--
25...	1240	755	--	90	--	--	--	--	--	--	--	--
25...	1300	540	--	110	--	--	--	--	--	--	--	--
25...	1320	325	--	160	--	--	--	--	--	--	--	--
25...	1330	110	--	350	--	--	--	--	--	--	--	--
26...	1020	--	13500	200	160	40	--	--	--	--	--	--
27...	1125	--	15300	130	110	20	--	--	--	--	--	--
29...	1035	--	24000	620	600	20	--	--	--	--	--	--
DEC												
02...	0930	--	18800	310	300	10	--	--	--	--	--	--
15...	1020	--	19600	--	--	--	--	--	--	--	--	--
JAN												
19...	1205	--	7920	60	--	20	1	--	<1	<50	--	40
FEB												
10...	1130	--	18600	270	240	30	--	--	--	--	--	--
12...	2215	--	182000	4500	<4500	20	--	--	--	--	--	--
13...	1245	--	137000	3500	<3500	40	--	--	--	--	--	--
13...	2230	--	130000	300	270	30	--	--	--	--	--	--
14...	1202	--	106000	40	0	40	--	--	--	--	--	--
18...	1140	--	49900	1300	<1300	50	--	--	--	--	--	--
20...	1140	3590	--	2000	--	--	--	--	--	--	--	--
20...	1150	3375	--	1800	--	--	--	--	--	--	--	--
20...	1205	3160	--	2800	--	--	--	--	--	--	--	--
20...	1215	2945	--	3100	--	--	--	--	--	--	--	--
20...	1230	2730	--	2800	--	--	--	--	--	--	--	--
20...	1240	2515	--	3200	--	--	--	--	--	--	--	--
20...	1310	--	101000	2500	--	70	--	--	--	--	--	--
20...	1335	1185	--	3000	--	--	--	--	--	--	--	--
20...	1345	970	--	3000	--	--	--	--	--	--	--	--
20...	1355	755	--	2400	--	--	--	--	--	--	--	--
20...	1405	540	--	E2300	--	--	--	--	--	--	--	--
20...	1425	325	--	2100	--	--	--	--	--	--	--	--
20...	1435	110	--	2400	--	--	--	--	--	--	--	--
20...	2300	--	156000	7000	--	20	--	--	--	--	--	--
21...	1205	3590	--	6300	--	--	--	--	--	--	--	--
21...	1222	3375	--	3900	--	--	--	--	--	--	--	--
21...	1235	3160	--	3500	--	--	--	--	--	--	--	--
21...	1245	2945	--	3100	--	--	--	--	--	--	--	--
21...	1300	2730	--	5100	--	--	--	--	--	--	--	--
21...	1315	2515	--	4800	--	--	--	--	--	--	--	--
21...	1355	--	231000	5200	--	30	--	--	--	--	--	--
21...	1415	1185	--	6000	--	--	--	--	--	--	--	--
21...	1425	970	--	7200	--	--	--	--	--	--	--	--
21...	1440	755	--	5000	--	--	--	--	--	--	--	--
21...	1455	540	--	4000	--	--	--	--	--	--	--	--
21...	1505	325	--	3300	--	--	--	--	--	--	--	--
21...	1520	110	--	3500	--	--	--	--	--	--	--	--
22...	0800	--	250000	4400	--	20	--	--	--	--	--	--
23...	0945	--	224000	3500	--	40	--	--	--	--	--	--
24...	0950	--	276000	3700	--	--	--	--	--	--	--	--
25...	0920	--	275000	2900	--	--	--	--	--	--	--	--
26...	0900	--	208000	2000	<2000	10	--	--	--	--	--	--
27...	0925	--	151000	1100	1100	10	--	--	--	--	--	--
MAR												
02...	0920	--	74300	550	--	--	--	--	--	--	--	--
18...	0955	--	22100	--	--	--	--	--	--	--	--	--
APR												
01...	0925	--	16800	--	--	--	--	--	--	--	--	--
MAY												
04...	1000	--	53100	--	--	--	<1	--	<1	100	70	30
JUL												
06...	1115	--	22200	--	--	--	1	0	1	100	60	40
SEP												
01...	1100	--	4560	--	--	--	3	1	2	100	0	100

E = Estimated values.

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
OCT												
01...	<1	--	--	10	--	--	--	--	--	4	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<1	--	--	30	--	--	--	--	--	7	--	--
NOV												
03...	<1	--	--	10	--	--	--	--	--	5	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
24...	<1	--	--	10	--	--	--	--	--	8	--	--
24...	<1	--	--	20	--	--	--	--	--	7	--	--
25...	<1	--	--	10	--	--	--	--	--	3	--	--
25...	<1	--	--	20	--	--	--	--	--	3	--	--
25...	<1	--	--	10	--	--	--	--	--	1	--	--
25...	<1	--	--	20	--	--	--	--	--	2	--	--
25...	<1	--	--	20	--	--	--	--	--	3	--	--
25...	<1	--	--	10	--	--	--	--	--	2	--	--
25...	<1	--	--	10	--	--	--	--	--	2	--	--
25...	<1	--	--	10	--	--	--	--	--	7	--	--
25...	<1	--	--	10	--	--	--	--	--	3	--	--
25...	<1	--	--	20	--	--	--	--	--	2	--	--
25...	1	--	--	10	--	--	--	--	--	3	--	--
25...	<1	--	--	10	--	--	--	--	--	4	--	--
25...	<1	--	--	10	--	--	--	--	--	4	--	--
26...	<1	--	--	20	--	--	--	--	--	3	--	--
27...	<1	--	--	10	--	--	--	--	--	6	--	--
29...	1	--	--	10	--	--	--	--	--	9	--	--
DEC												
02...	<1	--	--	30	--	--	--	--	--	7	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
19...	<1	--	<1	10	--	<10	1	--	<1	1	0	1
FEB												
10...	<1	--	--	10	--	--	--	--	--	5	--	--
12...	1	--	--	20	--	--	--	--	--	26	--	--
13...	1	--	--	10	--	--	--	--	--	17	--	--
13...	1	--	--	10	--	--	--	--	--	17	--	--
14...	<1	--	--	10	--	--	--	--	--	14	--	--
18...	1	--	--	10	--	--	--	--	--	11	--	--
20...	<1	--	--	<10	--	--	--	--	--	<1	--	--
20...	<1	--	--	10	--	--	--	--	--	5	--	--
20...	1	--	--	<10	--	--	--	--	--	9	--	--
20...	<1	--	--	10	--	--	--	--	--	7	--	--
20...	<1	--	--	<10	--	--	--	--	--	9	--	--
20...	<1	--	--	<10	--	--	--	--	--	13	--	--
20...	1	--	--	10	--	--	--	--	--	22	--	--
20...	<1	--	--	<10	--	--	--	--	--	8	--	--
20...	<1	--	--	<10	--	--	--	--	--	12	--	--
20...	<1	--	--	<10	--	--	--	--	--	10	--	--
20...	<1	--	--	<10	--	--	--	--	--	7	--	--
20...	<1	--	--	<10	--	--	--	--	--	12	--	--
20...	<1	--	--	10	--	--	--	--	--	12	--	--
20...	2	--	--	10	--	--	--	--	--	25	--	--
21...	<1	--	--	10	--	--	--	--	--	22	--	--
21...	<1	--	--	10	--	--	--	--	--	19	--	--
21...	<1	--	--	<10	--	--	--	--	--	16	--	--
21...	<1	--	--	<10	--	--	--	--	--	12	--	--
21...	<1	--	--	<10	--	--	--	--	--	18	--	--
21...	<1	--	--	10	--	--	--	--	--	16	--	--
21...	2	--	--	10	--	--	--	--	--	27	--	--
21...	<1	--	--	20	--	--	--	--	--	190	--	--
21...	<1	--	--	10	--	--	--	--	--	28	--	--
21...	<1	--	--	10	--	--	--	--	--	<1	--	--
21...	<1	--	--	10	--	--	--	--	--	17	--	--
21...	<1	--	--	10	--	--	--	--	--	17	--	--
21...	<1	--	--	10	--	--	--	--	--	17	--	--
22...	1	--	--	10	--	--	--	--	--	17	--	--
23...	1	--	--	10	--	--	--	--	--	17	--	--
24...	1	--	--	40	--	--	--	--	--	33	--	--
25...	1	--	--	20	--	--	--	--	--	17	--	--
26...	1	--	--	20	--	--	--	--	--	10	--	--
27...	1	--	--	10	--	--	--	--	--	9	--	--
MAR												
02...	1	--	--	10	--	--	--	--	--	5	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
04...	2	0	2	10	--	<10	<1	--	<1	5	3	2
JUL												
06...	1	--	<1	<10	--	10	6	3	3	22	13	9
SEP												
01...	1	--	<1	20	10	10	2	0	2	19	10	9

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)
OCT											
01...	200	190	10	2	—	—	120	110	10	<.1	—
14...	110	—	—	—	—	—	60	50	10	—	—
25...	200	190	10	6	—	—	110	100	10	<.1	—
NOV											
03...	550	20	530	4	—	—	230	160	70	<.1	—
12...	370	320	50	—	—	—	50	40	10	—	—
24...	540	450	90	9	—	—	80	20	60	<.1	—
24...	580	460	120	13	—	—	90	40	50	<.1	—
25...	720	—	—	<1	—	—	30	—	—	<.1	—
25...	970	—	—	2	—	—	80	—	—	<.1	—
25...	170	—	—	19	—	—	30	—	—	<.1	—
25...	220	—	—	<1	—	—	60	—	—	<.1	—
25...	140	—	—	<1	—	—	110	—	—	<.1	—
25...	260	—	—	3	—	—	200	—	—	<.1	—
25...	300	—	—	2	—	—	230	—	—	<.1	—
25...	560	430	130	6	—	—	140	80	60	<.1	—
25...	450	—	—	9	—	—	180	—	—	<.1	—
25...	600	—	—	10	—	—	90	—	—	<.1	—
25...	940	—	—	5	—	—	70	—	—	<.1	—
25...	1100	—	—	23	—	—	150	—	—	<.1	—
25...	1400	—	—	11	—	—	240	—	—	<.1	—
26...	780	650	130	<1	—	—	180	140	40	.1	—
27...	840	750	90	5	—	—	240	180	60	<.1	—
29...	810	600	210	10	—	—	<1100	1000	60	.1	—
DEC											
02...	<1200	1100	80	6	—	—	370	240	130	<.1	—
15...	680	590	90	—	—	—	290	120	170	—	—
JAN											
19...	490	390	100	<1	—	<1	190	10	180	<.1	—
FEB											
10...	1000	550	450	<1	—	—	370	40	330	.1	—
12...	11000	<11000	90	43	—	—	1900	<1700	210	<.1	—
13...	8700	>8600	80	33	—	—	1000	800	200	<.1	—
13...	7300	<7300	40	28	—	—	900	730	170	<.1	—
14...	6100	<6100	30	110	—	—	560	500	60	<.1	—
18...	3000	2900	100	85	—	—	460	230	230	<.1	—
20...	2600	—	—	2	—	—	220	—	—	.2	—
20...	2000	—	—	10	—	—	370	—	—	.1	—
20...	4300	—	—	17	—	—	1000	—	—	<.1	—
20...	4300	—	—	14	—	—	830	—	—	<.1	—
20...	4200	—	—	13	—	—	780	—	—	<.1	—
20...	6500	—	—	19	—	—	970	—	—	<.1	—
20...	5000	<5000	50	18	—	—	710	560	150	<.1	—
20...	5300	—	—	16	—	—	650	—	—	<.1	—
20...	6700	—	—	16	—	—	650	—	—	<.1	—
20...	6500	—	—	17	—	—	640	—	—	<.1	—
20...	3200	—	—	13	—	—	310	—	—	<.1	—
20...	5300	—	—	16	—	—	520	—	—	<.1	—
20...	6100	—	—	18	—	—	620	—	—	<.1	—
20...	13000	<13000	50	28	—	—	1400	—	390	.1	—
21...	9900	—	—	24	—	—	430	—	—	<.1	—
21...	7300	—	—	21	—	—	480	—	—	<.1	—
21...	6900	—	—	18	—	—	670	—	—	<.1	—
21...	6400	—	—	18	—	—	990	—	—	<.1	—
21...	11000	—	—	23	—	—	2000	—	—	<.1	—
21...	11000	—	—	22	—	—	1800	—	—	<.1	—
21...	11000	<11000	70	42	—	—	1600	—	100	<.1	—
21...	13000	—	—	53	—	—	1700	—	—	—	—
21...	17000	—	—	29	—	—	2000	—	—	<.1	—
21...	12000	—	—	59	—	—	1200	—	—	<.1	—
21...	9500	—	—	21	—	—	840	—	—	<.1	—
21...	8800	—	—	22	—	—	760	—	—	<.1	—
21...	8500	—	—	22	—	—	750	—	—	<.1	—
22...	10000	—	60	24	—	—	920	—	160	<.1	—
23...	7900	—	70	28	—	—	600	—	120	<.1	—
24...	7800	—	—	140	—	—	520	—	—	<.1	—
25...	5600	—	—	28	—	—	1900	—	—	<.1	—
26...	4500	<4500	40	14	—	—	470	350	120	<.1	—
27...	2100	<2100	50	12	—	—	350	180	170	<.1	—
MAR											
02...	930	—	—	5	—	—	50	—	—	<.1	—
18...	820	720	100	—	—	—	310	60	250	—	—
APR											
01...	610	550	60	—	—	—	180	40	140	—	—
MAY											
04...	1300	<1300	30	22	—	<1	230	150	80	—	—
JUL											
06...	540	0	<10	5	4	1	9	150	<160	.1	.0
SEP											
01...	510	500	10	35	26	9	140	110	30	.2	—

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
01...	--	3	--	--	--	--	0	--	20	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
25...	--	3	--	--	--	--	--	--	30	--	--
NOV											
03...	--	11	--	--	--	--	--	--	20	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
24...	--	11	--	--	--	--	--	--	30	--	--
24...	--	8	--	--	--	--	--	--	20	--	--
25...	--	2	--	--	--	--	--	--	20	--	--
25...	--	5	--	--	--	--	--	--	30	--	--
25...	--	4	--	--	--	--	--	--	20	--	--
25...	--	4	--	--	--	--	--	--	20	--	--
25...	--	--	--	--	--	--	--	--	20	--	--
25...	--	8	--	--	--	--	--	--	20	--	--
25...	--	13	--	--	--	--	--	--	30	--	--
25...	--	12	--	--	--	--	--	--	20	--	--
25...	--	6	--	--	--	--	--	--	20	--	--
25...	--	3	--	--	--	--	--	--	30	--	--
25...	--	7	--	--	--	--	--	--	30	--	--
25...	--	13	--	--	--	--	--	--	30	--	--
25...	--	6	--	--	--	--	--	--	30	--	--
26...	--	11	--	--	--	--	--	--	30	--	--
27...	--	13	--	--	--	--	--	--	20	--	--
29...	--	30	--	--	--	--	--	--	60	--	--
DEC											
02...	--	10	--	--	--	--	--	--	20	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	<.1	14	0	14	<1	<1	1	1	30	--	<4
FEB											
10...	--	8	--	--	--	--	--	--	110	--	--
12...	--	38	--	--	--	--	--	--	130	--	--
13...	--	20	--	--	--	--	--	--	80	--	--
13...	--	21	--	--	--	--	--	--	80	--	--
14...	--	19	--	--	--	--	--	--	60	--	--
18...	--	17	--	--	--	--	--	--	40	--	--
20...	--	1	--	--	--	--	--	--	50	--	--
20...	--	15	--	--	--	--	--	--	40	--	--
20...	--	37	--	--	--	--	--	--	80	--	--
20...	--	31	--	--	--	--	--	--	80	--	--
20...	--	28	--	--	--	--	--	--	90	--	--
20...	--	33	--	--	--	--	--	--	80	--	--
20...	--	24	--	--	--	--	--	--	40	--	--
20...	--	24	--	--	--	--	--	--	80	--	--
20...	--	24	--	--	--	--	--	--	70	--	--
20...	--	22	--	--	--	--	--	--	60	--	--
20...	--	13	--	--	--	--	--	--	70	--	--
20...	--	21	--	--	--	--	--	--	80	--	--
20...	--	25	--	--	--	--	--	--	90	--	--
20...	--	44	--	--	--	--	--	--	140	--	--
21...	--	20	--	--	--	--	--	--	80	--	--
21...	--	20	--	--	--	--	--	--	90	--	--
21...	--	26	--	--	--	--	--	--	80	--	--
21...	--	35	--	--	--	--	--	--	90	--	--
21...	--	60	--	--	--	--	--	--	150	--	--
21...	--	53	--	--	--	--	--	--	140	--	--
21...	--	45	--	--	--	--	--	--	130	--	--
21...	--	55	--	--	--	--	--	--	130	--	--
21...	--	61	--	--	--	--	--	--	170	--	--
21...	--	1	--	--	--	--	--	--	130	--	--
21...	--	28	--	--	--	--	--	--	100	--	--
21...	--	29	--	--	--	--	--	--	60	--	--
21...	--	28	--	--	--	--	--	--	80	--	--
22...	--	30	--	--	--	--	--	--	80	--	--
23...	--	22	--	--	--	--	--	--	60	--	--
24...	--	22	--	--	--	--	--	--	60	--	--
25...	--	52	--	--	--	--	--	--	80	--	--
26...	--	16	--	--	--	--	--	--	30	--	--
27...	--	11	--	--	--	--	--	--	30	--	--
MAR											
02...	--	1	--	--	--	--	--	--	40	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
MAY											
04...	<.1	11	7	4	<1	<1	<1	<1	50	--	<4
JUL											
06...	.1	10	8	2	<1	<1	<1	<1	<30	20	5
SEP											
01...	<.1	9	7	2	<1	<1	<1	<1	40	30	10

BEST DOCUMENT AVAILABLE

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)
APR								
01...	0925	16800	<2.0	<.4	2.1	.5	2.0	.5
AUG								
03...	1120	11600	<1.6	<.4	1.9	<.4	1.8	<.4

REVISED PESTICIDE ANALYSES, MARCH TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PROME-TRYNE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)
MAR 1980				
22...	0845	144000	.0	.00
22...	1910	194000	.0	.00
23...	1010	200000	.0	.00
24...	1045	175000	.0	.00
25...	1415	132000	.0	.00
26...	1355	129000	.0	.00
APR				
10...	1100	99900	.0	.10
28...	1320	32300	.0	.00
29...	1030	39200	.0	.00
29...	2225	48200	.0	.00
30...	1110	56800	.0	.10
30...	2235	75100	.0	.10
MAY				
01...	1200	83200	.0	.10
02...	1050	74900	.0	.00
14...	1045	48700	.0	.20
JUN				
02...	1050	16200	.0	.00
JUL				
01...	1100	9050	.0	.20
08...	1030	12900	.0	.10
14...	0930	11000	.0	.00
22...	0945	9180	.0	.10
SEP				
02...	1100	4040	.0	.00

PESTICIDE ANALYSES, AUGUST 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
AUG 1980												
05...	1200	6320	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
AUG 1980											
05...	ND	ND	ND	ND	ND	ND	ND	ND	.00	ND	ND

DATE	AME-TRYNE TOTAL	ATRA-TONE TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	CYPRA-ZINE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TONE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
AUG 1980											
05...	.00	.00	.00	.00	.00	.0	.0	.00	.10	.00	.0

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)
OCT											
01...	1120	3400	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
25...	1445	4470	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
NOV											
03...	1040	8530	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
24...	2115	9050	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
25...	1210	10100	<.10	<.10	<.01	<.10	<.01	<.01	<.01	.01	<.01
26...	1020	13500	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
27...	1125	15300	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
29...	1035	24000	<.10	<.10	<.01	<.10	<.01	<.01	<.01	.01	<.01
DEC											
02...	0930	18800	ND	--	ND	ND	ND	ND	ND	ND	ND
JAN											
19...	1205	7920	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
FEB											
10...	1130	18600	--	--	--	--	--	--	--	--	--
10...	1131	18600	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
12...	2215	182000	.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
13...	1245	137000	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
13...	2230	130000	.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
14...	1202	106000	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01
18...	1140	49900	--	--	--	--	--	--	--	--	--
20...	1310	101000	--	--	--	--	--	--	--	--	--
20...	2300	156000	--	--	--	--	--	--	--	--	--
21...	1355	231000	--	--	--	--	--	--	--	--	--
22...	0800	250000	--	--	--	--	--	--	--	--	--
23...	0945	224000	--	--	--	--	--	--	--	--	--
24...	0950	276000	--	--	--	--	--	--	--	--	--
25...	0920	275000	--	--	--	--	--	--	--	--	--
26...	0900	208000	--	--	--	--	--	--	--	--	--
27...	0925	151000	--	--	--	--	--	--	--	--	--
MAR											
02...	0920	74300	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01

DATE	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)
OCT										
01...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
25...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
NOV										
03...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
24...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
25...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
26...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
27...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
29...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
DEC										
02...	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
JAN										
19...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
FEB										
10...	--	--	--	--	--	--	--	--	--	--
10...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
12...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
13...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
13...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
14...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
18...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
MAR										
02...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	MIREX, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	AME-TRYNE TOTAL
OCT										
01...	<.01	<.01	<1.0	<.01	--	--	--	<.01	--	<.10
25...	<.01	<.01	<1.0	<.01	.02	<.01	.02	<.01	<.01	<.10
NOV										
03...	<.01	<.01	<1.0	<.01	.12	<.01	<.01	<.01	<.01	<.10
24...	<.01	<.01	<1.0	<.01	.41	<.01	<.01	<.01	<.01	<.10
25...	<.01	<.01	<1.0	<.01	.27	<.01	.02	<.01	<.01	<.10
26...	<.01	<.01	<1.0	<.01	.29	<.01	<.01	<.01	<.01	<.10
27...	<.01	<.01	<1.0	<.01	.27	<.01	.02	<.01	<.01	<.10
29...	<.01	<.01	<1.0	<.01	.10	<.01	<.01	<.01	<.01	<.10
DEC										
02...	ND	--	ND	ND	--	--	--	--	--	<.10
JAN										
19...	<.01	<.01	<1.0	<.01	.33	<.01	<.01	<.01	<.01	<.10
FEB										
10...	--	--	--	--	--	--	--	--	--	<.10
10...	<.01	<.01	<1.0	<.01	.04	<.01	<.01	<.01	<.01	--
12...	<.01	<.01	<1.0	<.01	.03	<.01	<.01	<.01	<.01	<.10
13...	<.01	<.01	<1.0	<.01	.02	<.01	<.01	<.01	<.01	<.10
13...	<.01	<.01	<1.0	<.01	.04	<.01	<.01	<.01	<.01	<.10
14...	<.01	<.01	<1.0	<.01	.03	<.01	<.01	<.01	<.01	<.10
18...	--	--	--	--	--	--	--	--	--	<.10
20...	--	--	--	--	--	--	--	--	--	<.10
20...	--	--	--	--	--	--	--	--	--	<.10
21...	--	--	--	--	--	--	--	--	--	<.10
22...	--	--	--	--	--	--	--	--	--	<.10
23...	--	--	--	--	--	--	--	--	--	<.10
24...	--	--	--	--	--	--	--	--	--	<.10
25...	--	--	--	--	--	--	--	--	--	<.10
26...	--	--	--	--	--	--	--	--	--	<.10
27...	--	--	--	--	--	--	--	--	--	<.10
MAR										
02...	<.01	<.01	<1.0	<.01	.02	<.01	<.01	<.01	<.01	<.10

DATE	ATRA-TONE TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	CYPRA-ZINE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TONE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT										
01...	<.10	.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
25...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
NOV										
03...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
24...	<.10	.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
25...	<.10	.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
26...	<.10	.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
27...	<.10	.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
29...	<.10	.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
DEC										
02...	<.10	.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
JAN										
19...	<.10	.10	.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
FEB										
10...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
10...	--	--	--	--	--	--	--	--	--	--
12...	<.10	.20	<.10	<.10	<.1	<.1	<.10	.10	<.10	<.1
13...	<.10	.10	<.10	<.10	<.1	<.1	<.10	.10	<.10	<.1
13...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
14...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
18...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
20...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
20...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
21...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
22...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
23...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
24...	<.10	3.4	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
25...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
26...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
27...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1
MAR										
02...	<.10	<.10	<.10	<.10	<.1	<.1	<.10	<.10	<.10	<.1

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
FEB								
20...	1310	101000	5.0	150	40900	25	35	50
21...	1355	231000	4.0	348	217000	34	45	59
23...	0945	224000	5.0	199	120000	36	51	64
24...	0950	276000	5.0	274	204000	43	56	72
25...	0920	275000	5.5	187	139000	37	52	64

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
FEB							
20...	66	79	89	95	99	99	100
21...	70	82	90	96	98	99	100
23...	78	89	94	97	99	99	100
24...	82	90	95	98	99	100	--
25...	75	85	92	96	98	100	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 3,80		MAR 2,81		MAY 4,81		JUN 1,81	
TIME	1040		0920		1000		1015	
TOTAL CELLS/ML	39000		26		2200		35000	
DIVERSITY: DIVISION	1.5		1.0		0.5		1.4	
.CLASS	1.5		1.0		0.5		1.4	
..ORDER	1.6		1.0		1.5		1.8	
...FAMILY	1.8		1.0		2.3		2.3	
....GENUS	1.9		1.0		2.7		3.0	

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	16	1	230	1
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	--	-	*	0
...OOCYSTACEAE								
....ANKISTRODESMUS	1000	3	--	-	--	-	790	2
....CHODATELLA	--	-	--	-	--	-	340	1
....DICTYOSPHAERIUM	--	-	--	-	63	3	3200	9
....KIRCHNERIELLA	--	-	--	-	--	-	450	1
....OOCYSTIS	210	1	--	-	--	-	--	-
....SELENASTRUM	830	2	--	-	--	-	450	1
....TETRAEDRON	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	*	0
....WESTELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	2700	8
....SCENEDESMUS	5800	15	13#	50	63	3	8700#	25
....TETRASTRUM	--	-	--	-	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	210	1	--	-	47	2	1200	4
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	16000#	42	--	-	490#	22	3500	10
....MELOSIRA	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	360#	17	--	-
..PENNALES								
YMBELLACEAE								
....CYMBELLA	--	-	13#	50	63	3	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	690#	32	1100	3
....FRAGILARIA	--	-	--	-	--	-	*	0
....SYNEDRA	--	-	--	-	--	-	340	1
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	*	0
...NAVICULACEAE								
....NAVICULA	--	-	--	-	94	4	--	-
...NITZSCHIACEAE								
....NITZSCHIA	210	1	--	-	270	12	*	0
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	900	3
....ANACYSTIS	14000#	36	--	-	16	1	11000#	31
....COCCOCHLORIS	420	1	--	-	--	-	--	-
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUL 6,81	AUG 3,81	SEP 1,81
TIME	1115	1120	1100
TOTAL CELLS/ML	28000	24000	150000
DIVERSITY: DIVISION	1.5	1.1	1.2
.CLASS	1.5	1.1	1.2
..ORDER	1.7	1.2	1.4
...FAMILY	2.1	2.5	1.9
....GENUS	2.7	2.8	3.1

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	---	-	*	0	---	-
...COELASTRACEAE						
....COELASTRUM	510	2	5700#	24	14000	9
...MICRACTINIACEAE						
....MICRACTINIUM	---	-	---	-	---	-
...OOCYSTACEAE						
....ANKISTRODESMUS	---	-	450	2	4300	3
....CHODATELLA	---	-	---	-	1400	1
....DICTYOSPHAERIUM	1000	4	5400#	22	5700	4
....KIRCHNERIELLA	---	-	---	-	4900	3
....OOCYSTIS	---	-	---	-	2200	1
....SELENASTRUM	1400	5	---	-	---	-
....TETRAEDRON	170	1	---	-	810	1
....TREUBARIA	---	-	---	-	---	-
....WESTELLA	680	2	---	-	---	-
...SCENEDESMACEAE						
....ACTINASTRUM	1400	5	---	-	---	-
....SCENEDESMUS	2700	10	6000#	25	11000	7
....TETRASTRUM	680	2	510	2	1100	1
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	---	-	---	-	7000	5
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	680	2	---	-	---	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	12000#	44	2100	9	4900	3
....MELOSIRA	680	2	190	1	---	-
....STEPHANODISCUS	---	-	---	-	---	-
..PENNALES						
...CYMBELLACEAE						
....CYMBELLA	---	-	---	-	---	-
...FRAGILARIACEAE						
....ASTERIONELLA	---	-	---	-	---	-
....FRAGILARIA	---	-	---	-	1100	1
....SYNEDRA	---	-	130	1	---	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	---	-	---	-	---	-
...NAVICULACEAE						
....NAVICULA	---	-	130	1	*	0
...NITZSCHIACEAE						
....NITZSCHIA	510	2	450	2	*	0
.XANTHOPHYCEAE						
..HETEROCOCCALES						
...CHLOROTHECIACEAE						
....OPHIOCYTIUM	---	-	*	0	---	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	---	-	1000	4	17000	12
....ANACYSTIS	5100#	18	1600	7	53000#	36
....COCCOCHLORIS	---	-	---	-	---	-
....GOMPHOSPHAERIA	---	-	---	-	21000	14
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	---	-	260	1	---	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), APRIL TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	166000	82	37000	83200	73	16400	15900	8	341
2	190000	94	48400	74500	67	13400	16100	7	305
3	169000	81	37100	64300	47	8110	16600	7	313
4	135000	71	25700	55200	31	4690	16200	7	318
5	111000	65	19500	49400	22	2920	16900	8	365
6	95200	61	15700	44400	19	2320	17300	8	374
7	84600	64	14600	40100	18	1920	12800	6	213
8	74500	68	13700	36400	16	1610	15600	7	315
9	74400	74	15000	33200	15	1360	15500	10	406
10	104000	96	27400	30400	14	1140	17100	12	557
11	152000	145	59600	28200	13	972	20800	14	781
12	150000	144	58900	28300	15	1110	20600	15	835
13	117000	110	35000	38500	46	4960	19000	14	722
14	97100	96	25200	48700	98	12800	17800	14	673
15	108000	116	34000	46300	96	11900	16100	13	577
16	138000	133	49500	45900	83	10300	15100	13	530
17	130000	117	41300	43200	64	7450	14100	12	459
18	105000	100	28200	40200	49	5230	13800	11	424
19	82200	85	18900	36800	37	3610	13100	11	383
20	67300	72	13100	34300	29	2630	12100	10	327
21	58000	61	9620	34500	27	2480	11300	9	290
22	50700	51	7010	34600	26	2390	11200	9	272
23	45100	39	4700	35100	25	2320	11200	8	249
24	40900	29	3190	32200	22	1910	10800	8	233
25	37900	22	2210	28400	19	1490	10100	7	200
26	34600	16	1490	26700	17	1240	9370	7	177
27	32600	13	1120	24600	15	1010	9260	7	180
28	32900	15	1340	22400	14	818	9050	8	195
29	41300	25	2820	20400	12	661	8920	8	192
30	60600	57	9440	17800	10	503	8920	9	211
31	---	---	---	16400	9	406	---	---	---
TOTAL	2784900	---	660740	1194600	---	130060	422620	---	11417

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	8660	9	218	6870	10	193	4040	4	39
2	8920	12	296	6430	12	213	4070	3	33
3	11100	15	440	6320	15	253	4200	4	41
4	13500	16	588	6320	18	298	4380	4	48
5	18500	18	898	6320	21	356	4440	5	60
6	14600	14	554	6650	23	405	4480	6	71
7	13000	13	457	7200	24	479	4370	7	81
8	12300	13	432	7200	23	447	4480	8	96
9	11700	12	389	7920	20	437	7400	12	250
10	11400	12	367	7810	18	384	5530	10	150
11	12100	11	367	7740	16	340	3980	8	87
12	12000	11	357	7810	14	305	3880	8	84
13	12700	10	352	7940	13	288	3830	8	85
14	10500	10	284	9680	15	382	3650	9	89
15	9570	10	257	8440	14	308	3530	9	87
16	8790	10	239	8450	12	283	3700	9	90
17	9180	10	246	7880	11	241	3600	9	88
18	8790	10	236	7330	10	206	3590	9	87
19	8530	10	231	10300	14	388	3700	9	89
20	9050	10	249	9420	14	349	4240	9	102
21	10700	11	319	8230	13	282	4260	8	96
22	8920	9	221	7330	12	230	4090	8	89
23	7920	8	170	6820	11	196	3960	8	86
24	7800	7	154	6340	10	168	3860	8	84
25	7320	7	133	5880	9	143	3720	8	81
26	7320	6	118	5480	8	121	3590	8	76
27	7090	5	105	5170	8	106	3360	9	81
28	6760	5	93	4800	7	89	3320	10	88
29	6430	6	106	4600	6	72	3440	11	100
30	6210	7	123	4430	5	60	3420	12	109
31	6430	9	149	4320	4	47	---	---	---
TOTAL	307790	---	9148	217430	---	8069	122170	---	2647

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), OCTOBER 1980 TO MARCH 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	3400	13	119	11100	25	748	21300	20	1160
2	3330	13	116	9980	23	611	18900	14	705
3	3400	13	120	8660	20	479	16800	11	518
4	3650	12	122	7680	16	332	18500	17	848
5	3480	12	114	7090	12	234	22700	34	2120
6	3570	12	115	6320	9	162	24200	25	1630
7	3650	12	115	5800	7	114	24300	17	1120
8	3650	10	99	5600	6	83	21800	12	685
9	3480	9	81	5400	4	63	18900	8	423
10	3480	7	69	5200	3	46	17500	8	356
11	3650	6	62	5100	3	35	17500	7	340
12	3480	5	51	5300	2	29	19600	11	605
13	3330	5	42	5900	2	32	22900	17	1070
14	3330	4	36	6100	2	31	21800	11	647
15	3400	5	44	6320	1	17	19600	6	339
16	3400	6	51	6320	1	17	17700	6	283
17	3400	6	60	6650	1	18	15900	5	215
18	3480	8	71	7320	1	20	14700	5	198
19	3480	9	82	7200	1	19	13800	5	186
20	3260	10	93	7320	1	20	11000	4	119
21	3260	12	101	7320	1	20	9200	4	99
22	3260	10	84	7090	1	19	7400	4	80
23	3330	8	70	7090	1	19	6700	6	109
24	3400	6	59	8040	1	22	6300	7	119
25	4120	5	58	10300	5	132	5900	8	127
26	4830	6	84	14000	8	304	5600	5	84
27	5500	9	129	15600	9	396	5200	6	96
28	8160	11	254	17800	17	871	5900	6	113
29	11200	13	410	23800	39	2520	7000	6	159
30	9700	13	346	22700	30	1860	8400	7	157
31	10800	21	604	---	---	---	8300	7	172
TOTAL	136860	---	3861	270100	---	9273	455300	---	14882

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	8200	7	155	5700	5	77	91300	39	9730
2	8100	7	153	6000	8	130	73300	33	6450
3	8000	6	130	10000	10	270	61600	28	4590
4	6500	6	105	15000	12	486	55100	23	3490
5	7000	5	94	18000	14	680	49100	20	2650
6	6600	5	89	16000	13	561	44800	17	2050
7	6200	6	100	15000	11	445	40300	14	1560
8	6000	6	97	14500	12	470	36300	12	1200
9	5900	7	111	14000	17	643	32300	10	908
10	5800	7	110	16000	15	648	29500	9	722
11	5700	6	92	25000	20	1350	28100	9	685
12	5600	6	91	142000	284	127000	27200	9	659
13	5500	6	89	147000	315	128000	26200	9	636
14	5300	6	86	110000	164	49400	25500	8	569
15	5200	7	98	83200	103	23300	23200	8	503
16	5200	7	98	65400	81	14300	23200	8	502
17	5200	6	84	54300	70	10300	22700	8	492
18	5400	6	87	49500	68	9100	22100	8	476
19	5600	6	91	54100	86	12800	22000	8	490
20	5500	6	89	106000	179	56200	20100	9	488
21	5500	5	74	214000	339	196000	19400	9	471
22	5600	5	76	247000	274	183000	18800	10	497
23	5600	5	76	228000	206	127000	17800	10	482
24	5600	5	76	274000	267	199000	17100	11	489
25	5600	5	76	268000	195	142000	16500	11	489
26	5700	5	77	202000	141	78400	15700	11	469
27	5800	5	78	149000	74	30200	15300	10	415
28	5900	5	80	116000	50	15800	15200	10	412
29	5800	5	78	---	---	---	15000	10	407
30	5600	5	76	---	---	---	15200	10	389
31	5600	5	76	---	---	---	15900	9	386
TOTAL	184800	---	2892	2664700	---	1407560	935800	---	43756

01571500 YELLOW BREECHES CREEK NEAR CAMP HILL, PA

LOCATION.--Lat 40°13'29", long 76°53'54", Cumberland County, Hydrologic Unit 02050305, on left bank 50 ft (15 m) downstream from single-span highway bridge, 150 ft (46 m) downstream from Olmsted's Mill dam, 1 mi (1.6 km) southeast of Camp Hill and 3.1 miles (5.0 km) upstream from mouth.

DRAINAGE AREA.--216 mi^2 (559 km^2).

PERIOD OF RECORD.--April 1909 to December 1919, June 1954 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to June 1954, published as "at Olmsteds Mill".

REVISED RECORDS.--WSP 1302: 1910, 1912-13, 1914(M), 1916.

GAGE.--Water-stage recorder. Datum at gage is 307.49 ft (93.723 m) National Geodetic Vertical Datum of 1929. March 1909 to December 1919, nonrecording gage at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. The Mechanicsburg Water Co. diverts water at a point about 4 mi (6.44 km) upstream from station for municipal water supply, equivalent to a mean discharge at station of 1.1 ft^3/s (0.031 m^3/s). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years (1909-1919, 1954-81), 292 ft^3/s (8.269 m^3/s), 18.36 in/yr (466 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft^3/s (547 m^3/s) Sept. 26, 1975, gage height, 18.77 ft (5.721 m), from floodmarks; minimum 23 ft^3/s (0.651 m^3/s) Sept. 12, 1966, gage height, 0.17 ft (0.052 m); minimum daily, 67 ft^3/s (1.90 m^3/s) Sept. 13, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 22, 1953 reached a stage of 9.4 ft (2.87 m) from floodmarks, discharge, 3,940 ft^3/s (112 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,250 ft^3/s (35.4 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s	(m^3/s)	Gage height (ft)	(m)	Date	Time	Discharge (ft^3/s	(m^3/s)	Gage height (ft)	(m)
Feb. 2	1630	1,620	45.9	4.88	1.487	Feb. 21	0815	1,600	45.3	4.83	1.472
Feb. 11	1245	1,530	43.3	4.66	1.420	Feb. 24	1830	*2,500	70.8	a*7.04	2.146

Minimum discharge, 92 ft^3/s (2.60 m^3/s) Sept. 24, 25, 28, 29, 30, gage height 0.83 ft (0.319 m), minimum gage height, 0.64 ft (0.195 m) Jan. 5.

a 7.19 ft (2.192 m) from floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	125	149	86	105	548	214	250	186	144	113	163
2	115	123	146	83	820	470	217	264	186	166	108	144
3	118	120	152	81	552	419	201	243	192	154	180	128
4	118	123	152	80	205	379	195	224	192	166	198	133
5	115	123	141	80	154	383	198	217	189	189	177	123
6	113	123	135	79	149	368	198	217	177	169	144	118
7	115	120	138	79	138	345	189	214	169	154	130	115
8	113	123	135	79	133	333	183	201	160	144	128	113
9	113	123	135	78	123	333	186	198	160	135	125	108
10	113	120	138	78	118	337	201	195	177	130	118	110
11	115	120	135	78	1080	322	208	271	189	123	118	133
12	113	115	133	77	850	311	264	540	169	123	123	113
13	110	115	133	78	322	292	462	450	154	120	130	105
14	110	118	130	79	257	278	627	267	174	115	120	105
15	110	120	125	81	227	264	711	253	289	115	118	123
16	110	118	133	83	211	271	519	257	208	115	118	138
17	113	118	130	85	208	292	462	237	169	115	113	135
18	123	149	125	87	208	267	430	220	154	115	108	123
19	123	157	125	90	214	253	379	214	152	115	105	120
20	118	144	123	97	611	250	352	211	177	123	105	115
21	118	133	110	100	1480	243	326	201	177	125	101	113
22	118	133	115	110	959	237	303	198	292	133	96	110
23	115	130	123	112	1280	227	307	192	208	120	98	105
24	118	423	123	118	2450	224	318	189	169	113	96	101
25	296	601	110	113	1650	217	303	180	177	113	101	101
26	318	253	101	113	1040	211	278	189	224	133	98	101
27	166	186	100	113	763	208	264	201	183	146	101	103
28	144	177	96	113	618	205	264	198	160	123	98	103
29	133	177	93	113	---	198	260	278	152	125	101	98
30	130	163	91	110	---	205	257	243	144	123	98	98
31	125	---	88	110	---	230	---	198	---	118	166	---
TOTAL	4079	4873	3863	2863	17125	9120	9276	7410	5509	4102	3733	3498
MEAN	132	162	125	92.4	612	294	309	239	184	132	120	117
MAX	318	601	152	118	2450	548	711	540	292	189	198	163
MIN	110	115	88	77	105	198	183	180	144	113	96	98
CFSM	.61	.75	.58	.43	2.83	1.36	1.43	1.11	.85	.61	.56	.54
IN.	.70	.84	.67	.49	2.95	1.57	1.60	1.28	.95	.71	.64	.60

CAL YR 1980 TOTAL 101411 MEAN 277 MAX 1890 MIN 88 CFSM 1.28 IN 17.47
WTR YR 1981 TOTAL 75451 MEAN 207 MAX 2450 MIN 77 CFSM .96 IN 12.99

01573000 SWATARA CREEK AT HARPER TAVERN, PA

LOCATION.--Lat 40°24'09", long 76°34'39", Lebanon County, Hydrologic Unit 02050305, on left bank 10 ft (3 m) downstream from bridge on State Highway 934 at Harper Tavern, 6 mi (9.7 km) northwest of Annville and 8.5 mi (13.7 km) downstream from Little Swatara Creek.

DRAINAGE AREA.--337 mi^2 (873 km^2).

PERIOD OF RECORD.--January 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1927, published as "at Harpers".

REVISED RECORDS.--WSP 1202: 1948. WSP 1302: 1920(M), 1921, 1924-25(M), 1927-28(M), 1930(M). WSP 1903: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 356.68 ft (108.716 m) National Geodetic Vertical Datum of 1929. Prior to July 16, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. During periods of low flow about 6.0 ft^3/s (0.17 m^3/s) was diverted above station each day for municipal supply of Lebanon. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--62 years, 572 ft^3/s (16.20 m^3/s) 23.05 in/yr (585 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,700 ft^3/s (1,890 m^3/s) June 23, 1972, gage height, 23.72 ft (7.230 m), from floodmark in gage shelter, from rating curve extended above 25,000 ft^3/s (708 m^3/s) on basis of slope-area measurement of peak flow; minimum, 6.0 ft^3/s (0.17 m^3/s) Aug. 21, 1965; minimum observed gage height, -0.32 ft (-0.098 m) Sept. 24, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889, reached a stage of 25.6 ft (7.80 m), from floodmark, discharge, 88,000 ft^3/s (2,490 m^3/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,800 ft^3/s (136 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 3	0630	5,090	144	8.05	2.454	Feb. 24	0600	6,440	182	9.80	2.987
Feb. 11	2130	*11,000	312	*12.61	3.844						

Minimum discharge, 18 ft^3/s (0.51 m^3/s) Oct. 7-11, 14, 15, gage height, -0.30 ft (-0.091 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	32	143	34	54	852	295	399	205	177	101	108
2	23	29	129	34	120	709	367	378	208	808	94	75
3	25	29	158	34	115	606	314	342	246	690	105	60
4	23	31	125	34	110	526	298	314	276	935	116	53
5	25	31	98	34	105	526	373	293	233	2210	103	49
6	20	29	107	34	100	505	584	289	186	1070	88	49
7	18	29	116	34	98	462	461	279	167	688	83	49
8	18	30	100	34	105	458	415	251	146	513	103	49
9	18	31	98	34	120	464	399	233	147	418	134	56
10	18	35	101	35	134	434	401	225	185	354	104	64
11	18	31	94	35	5090	408	421	334	195	298	85	49
12	25	31	83	36	4150	401	1110	979	158	257	87	49
13	20	31	79	37	1290	367	905	705	128	227	86	49
14	18	31	74	37	854	340	1150	555	229	203	68	48
15	18	32	65	38	634	302	1290	624	494	177	64	51
16	20	32	61	39	519	316	949	1830	560	160	64	80
17	20	32	56	39	477	304	831	918	308	153	60	91
18	31	53	50	40	474	263	748	676	225	143	51	73
19	41	91	45	41	488	273	614	564	185	129	51	78
20	51	78	42	42	1890	248	545	502	399	183	49	84
21	35	53	39	45	2950	249	479	442	386	1030	49	59
22	32	53	37	48	1960	231	437	394	646	473	49	48
23	30	53	35	50	2560	221	437	352	398	279	48	46
24	31	502	35	51	5250	211	708	320	274	205	48	41
25	84	1220	35	53	2770	200	561	296	248	180	48	40
26	176	425	35	55	1810	189	452	286	692	170	48	35
27	110	270	35	56	1290	183	408	354	345	171	46	32
28	60	235	34	56	1000	179	381	294	251	148	46	37
29	44	217	34	56	---	166	443	295	207	142	46	32
30	37	176	34	56	---	195	451	275	182	134	46	31
31	32	---	34	55	---	375	---	236	---	111	78	---
TOTAL	1149	3952	2211	1306	36517	11163	17227	14234	8509	12836	2248	1665
MEAN	37.1	132	71.3	42.1	1304	360	574	459	284	414	72.5	55.5
MAX	176	1220	158	56	5250	852	1290	1830	692	2210	134	108
MIN	18	29	34	34	54	166	295	225	128	111	46	31
CFSM	.11	.39	.21	.13	3.87	1.07	1.70	1.36	.84	1.23	.22	.17
IN.	.13	.44	.24	.14	4.03	1.23	1.90	1.57	.94	1.42	.25	.18

CAL YR 1980 TOTAL 123524 MEAN 337 MAX 5650 MIN 18 CFSM 1.00 IN 13.64
WTR YR 1981 TOTAL 113017 MEAN 310 MAX 5250 MIN 18 CFSM .92 IN 12.48

01573086 BECK CREEK NEAR CLEONA, PA

LOCATION.--Lat 40°19'24", long 76°29'00", Lebanon County, Hydrologic Unit 02050305, on right bank at bridge on Township Road T421, 0.4 mi (0.6 km) upstream from mouth and 1 mi (1.6 km) south of Cleona.

DRAINAGE AREA.--7.87 mi^2 (20.38 km^2).

PERIOD OF RECORD.--August 1963 to March 1981 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 414.77 ft (126.422 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years (water years 1964-80), 8.62 ft^3/s (0.244 m^3/s), 14.87 in/yr (378 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,150 ft^3/s (146 m3/s) June 22, 1972, gage height, 11.53 ft (3.514 m), from rating curve extended above 140 ft^3/s (3.96 m^3/s) on basis of computation of peak flow through culvert and over road; no flow Jan. 30, 31, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12 ft^3/s (0.340 m^3/s) Nov. 24; maximum gage height, 4.83 ft (1.472 m) Feb. 24; minimum daily discharge 0.98 ft^3/s (0.028 m^3/s) Jan. 22-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	2.2	3.8	1.3	1.7	5.5						
2	2.4	1.7	3.4	1.3	3.0	5.5						
3	3.0	1.7	3.1	1.3	5.0	5.5						
4	2.3	1.8	3.1	1.2	4.1	5.5						
5	2.1	1.9	3.1	1.2	3.6	5.2						
6	2.1	2.1	3.1	1.2	3.4	5.5						
7	2.1	2.1	3.1	1.3	3.4	5.5						
8	2.1	2.1	3.1	1.3	5.4	5.5						
9	2.1	2.1	2.8	1.2	5.0	5.5						
10	2.1	2.1	2.5	1.2	4.5	5.5						
11	2.1	1.9	2.6	1.1	6.8	5.2						
12	2.1	1.9	2.6	1.0	6.0	5.2						
13	2.1	1.8	2.4	.98	5.0	5.2						
14	4.7	1.8	2.4	.99	4.5	5.2						
15	6.7	1.8	2.1	1.0	4.2	5.0						
16	7.0	1.8	2.1	1.0	4.2	5.0						
17	7.0	1.8	2.1	1.0	4.0	4.7						
18	7.0	1.8	2.1	1.0	4.2	4.7						
19	4.7	2.1	1.8	1.0	4.2	4.7						
20	2.6	2.1	1.7	1.0	5.0	4.7						
21	2.3	2.1	1.7	1.0	6.5	4.5						
22	2.6	2.1	1.6	1.1	6.0	4.5						
23	2.8	1.9	1.6	1.5	5.8	4.2						
24	3.1	4.2	1.5	1.9	7.2	4.2						
25	3.6	5.8	1.4	2.0	7.2	4.2						
26	4.2	4.7	1.4	2.1	6.7	4.2						
27	3.8	4.2	1.4	2.2	6.2	4.2						
28	3.4	3.8	1.3	2.1	5.8	4.0						
29	3.1	3.8	1.3	2.0	---	4.0						
30	2.8	3.4	1.3	2.0	---	4.0						
31	2.8	---	1.3	1.9	---	4.0						
TOTAL	104.3	74.6	68.8	42.37	138.6	150.3						
MEAN	3.36	2.49	2.22	1.37	4.95	4.85						
MAX	7.0	5.8	3.8	2.2	7.2	5.5						
MIN	2.1	1.7	1.3	.98	1.7	4.0						
CFSM	.43	.32	.28	.17	.63	.62						
IN.	.49	.35	.33	.20	.66	.71						

CAL YR 1980 TOTAL 2706.2 MEAN 7.39 MAX 40 MIN 1.3 CFSM .94 IN 12.79

01573160 QUITTAPAHILLA CREEK NEAR BELLEGROVE, PA

LOCATION.--Lat 40°20'34", long 76°33'46", Lebanon County, Hydrologic Unit 02050305, on right bank 210 ft (64.0 m) downstream from bridge on L.R. 38001, 0.7 mi (1.1 km) downstream from Killinger Creek and 1.8 mi (2.9 km) south of Bellegrove.

DRAINAGE AREA.--74.2 mi^2 (192.2 km^2).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 370 ft (113 m), from topographic map.

REMARKS.--Records good. Slight regulation from Millard limestone quarry, 0.7 mi (1.1 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 113 ft^3/s (3.200 m^3/s), 20.68 in/yr (525 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 4,800 ft^3/s (136 m^3/s) Jan. 24, 1979, gage height, 13.27 ft (4.045 m) on basis of rating curve extended above 1,900 ft^3/s (53.8 m^3/s); minimum, 28 ft^3/s (0.79 m^3/s) Oct. 26, 27, 28, 29, 1980; minimum gage height, 3.48 ft (1.061 m) Aug. 23, 25-28, Sept. 24-27, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	1230	404	11.4	5.37	1.637	July 4	2400	*674	19.1	*6.27	1.911

Minimum discharge, 28 ft^3/s (0.79 m^3/s) Oct. 26, 27, 28, 29, minimum gage height, 3.49 ft (1.064 m) Oct. 1-29, Mar. 26-31, Apr. 28-30, May 1, 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	29	29	30	31	57	51	51	59	63	54	46
2	50	29	29	30	79	56	51	51	72	85	48	44
3	50	29	30	30	31	54	51	51	77	68	72	40
4	51	29	29	30	31	56	51	51	77	164	52	39
5	50	29	29	29	31	56	51	51	68	195	52	39
6	50	29	29	29	31	56	52	51	88	88	46	39
7	50	30	30	30	31	56	51	51	84	84	46	42
8	50	29	29	31	32	56	51	51	72	76	58	40
9	50	29	30	31	32	56	51	51	71	70	65	42
10	50	29	30	31	31	56	51	51	99	69	45	39
11	50	29	30	31	231	55	51	54	87	65	47	40
12	50	29	30	31	112	55	51	57	99	70	47	40
13	50	29	30	31	93	55	56	51	91	64	44	40
14	50	29	30	31	87	55	51	51	147	64	43	39
15	50	29	30	31	84	54	71	97	119	63	49	46
16	50	29	30	31	85	54	69	84	112	59	47	45
17	50	29	30	31	84	54	59	59	106	60	42	40
18	60	29	30	31	84	54	53	56	96	58	41	44
19	50	29	30	31	84	54	53	58	95	63	42	47
20	50	29	30	31	100	54	52	56	178	63	41	40
21	50	29	30	31	112	54	51	56	121	65	42	39
22	50	29	30	31	93	54	51	60	190	57	45	40
23	50	29	30	31	126	54	51	56	138	54	44	42
24	50	122	30	31	153	54	51	62	130	53	42	39
25	72	51	30	31	96	54	51	59	152	57	43	40
26	32	31	29	31	75	52	51	58	83	59	44	40
27	28	29	29	31	65	50	51	59	65	50	42	40
28	28	29	30	31	60	50	51	57	59	56	40	42
29	28	29	30	31	---	51	52	65	60	56	42	40
30	29	29	30	31	---	51	50	71	60	48	42	40
31	29	---	30	31	---	51	---	69	---	49	57	---
TOTAL	1457	988	922	952	2184	1678	1587	1805	2955	2195	1464	1233
MEAN	47.0	32.9	29.7	30.7	78.0	54.1	52.9	58.2	98.5	70.8	47.2	41.1
MAX	72	122	30	31	231	57	71	97	190	195	72	47
MIN	28	29	29	29	31	50	50	51	59	48	40	39
CFSM	.63	.44	.40	.41	1.05	.73	.71	.78	1.33	.95	.64	.55
IN.	.73	.50	.46	.48	1.09	.84	.80	.90	1.48	1.10	.73	.62

CAL YR 1980 TOTAL 26360 MEAN 72.0 MAX 267 MIN 28 CFSM .97 IN 13.22
WTR YR 1981 TOTAL 19420 MEAN 53.2 MAX 231 MIN 28 CFSM .72 IN 9.74

01573560 SWATARA CREEK NEAR HERSHEY, PA

LOCATION.--Lat 40°17'54", long 76°40'05", Dauphin County, Hydrologic Unit 02050305, on left bank, 0.4 mi (0.6 km) downstream from Manada Creek, 0.5 mi (0.8 km) upstream from State Highway 39, and 1.5 mi (2.4 km) northwest of Hershey.

DRAINAGE AREA.--483 mi^2 (1,250 km^2).

PERIOD OF RECORD.--September 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 340 ft (104 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 842 ft^3/s (23.84 m^3/s), 26.67 in/yr (601 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft^3/s (833 m^3/s) Sept. 27, 1975, gage height, 15.36 ft (4.682 m); minimum, 58 ft^3/s (1.64 m^3/s) Sept. 15 - 18, 23, 24, 1980, gage height, 1.40 ft (0.427 m^3/s).

EXTREMES FOR CURRENT YEAR.--peak discharges above base of 6,900 ft^3/s (195 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 12	0600	*8,300	235	*6.86	2.091	Feb. 24	1115	7,040	199	6.20	1.890

Minimum discharge, 58 ft^3/s (1.64 m^3/s) Oct. 12, 13, 23, 24, gage height, 1.40 ft (0.427 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	76	194	74	88	1160	366	281	246	213	143	161
2	70	76	172	75	250	966	417	320	246	626	137	149
3	65	71	198	75	230	824	392	290	283	889	184	122
4	70	74	182	76	220	709	348	270	302	659	190	104
5	70	78	137	79	200	693	425	260	286	2300	160	98
6	70	79	133	81	190	672	683	240	236	1260	137	95
7	76	73	159	86	180	599	561	230	218	846	126	100
8	70	81	151	84	180	588	485	220	194	616	154	96
9	65	81	139	82	190	594	464	220	184	484	218	106
10	70	87	143	80	200	559	465	210	215	403	159	113
11	70	82	139	78	4050	511	457	500	241	343	138	98
12	65	89	129	77	5280	511	1260	1200	213	302	132	94
13	70	84	118	76	1660	463	1220	920	179	268	138	88
14	65	82	117	74	1150	422	1460	670	250	246	123	80
15	65	79	94	73	890	385	1640	700	423	223	123	91
16	70	79	90	73	716	392	1270	1770	716	208	124	144
17	80	80	87	74	636	389	1110	1090	373	197	117	143
18	90	107	85	75	620	336	998	800	265	188	103	136
19	105	134	82	76	643	339	867	667	220	182	97	134
20	70	142	79	77	2160	324	721	577	435	207	90	132
21	76	118	76	78	3420	305	551	504	487	1040	89	113
22	70	105	75	80	2330	296	438	451	727	557	87	102
23	65	105	74	81	2810	284	407	393	536	343	94	101
24	65	487	74	83	6170	271	933	359	336	249	87	89
25	143	1300	73	85	3330	259	724	340	306	222	88	82
26	206	555	73	86	2180	252	383	318	729	219	88	81
27	178	337	73	87	1630	240	292	386	441	209	85	82
28	122	292	74	87	1320	231	262	350	297	199	85	88
29	99	268	74	88	---	225	356	335	254	182	80	84
30	92	227	74	88	---	240	370	328	224	177	82	86
31	83	---	74	88	---	415	---	283	---	152	140	---
TOTAL	2645	5528	3442	2476	42923	14454	20325	15482	10062	14209	3798	3192
MEAN	85.3	184	111	79.9	1533	466	678	499	335	458	123	106
MAX	206	1300	198	88	6170	1160	1640	1770	729	2300	218	161
MIN	65	71	73	73	88	225	262	210	179	152	80	80
CFSM	.18	.38	.23	.17	3.17	.97	1.40	1.03	.69	.95	.26	.22
IN.	.20	.43	.27	.19	3.31	1.11	1.57	1.19	.77	1.09	.29	.25

CAL YR 1980 TOTAL 163986 MEAN 448 MAX 6420 MIN 60 CFSM .93 IN 12.63
WTR YR 1981 TOTAL 138536 MEAN 380 MAX 6170 MIN 65 CFSM .79 IN 10.67

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA

LOCATION.--Lat 40°04'56", long 76°43'13", York County, Hydrologic Unit 02050306, on left bank 500 ft (150 m) upstream from bridge on State Highway 181, 0.7 mi (1.1 km) downstream from Little Conewago Creek and 1.5 mi (2.4 km) north of Manchester.

DRAINAGE AREA.--510 mi^2 (1,321 km^2).

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October 1928, published in WSP 1302. Prior to October 1931, published as Conewago Creek near Manchester.

REVISED RECORDS.--WSP 741: Drainage area. WSP 1502: 1930, 1936.

GAGE.--Water-stage recorder. Datum of gage is 263.68 ft (80.370 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Occasional slight regulation by Conewago Lake, capacity, 3,570 acre-ft (4.40 hm^3) since October 1959. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years, 294 ft^3/s (8.33 m^3/s), 7.83 in/yr (199 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96,200 ft^3/s (2,720 m^3/s) Sept. 26, 1975, gage height, 32.11 ft (9.787 m), from floodmarks, from rating curve extended above 45,000 ft^3/s (1,270 m^3/s) on basis of slope-area measurement at gage height 30.26 ft (9.223 m); minimum, 1.9 ft^3/s (0.054 m^3/s) Oct. 13, 1941; minimum gage height, 1.03 ft (0.314 m) Aug. 9, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft^3/s (286 m^3/s) Feb. 24, gage height, 11.53 ft (3.514 m), no peak above base of 10,800 ft^3/s (306 m^3/s); minimum 22 ft^3/s (0.62 m^3/s) Oct. 18, 20, 21, gage height 2.15 ft (0.655 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	49	216	47	40	707	292	252	186	111	70	621
2	26	42	183	46	236	635	275	271	169	117	60	283
3	26	38	174	46	1870	529	283	309	169	113	60	66
4	26	38	141	46	618	469	244	256	222	252	113	106
5	26	45	129	45	343	436	233	229	296	587	129	104
6	26	69	113	44	253	481	263	212	240	369	129	89
7	26	67	101	43	251	475	288	202	215	233	94	70
8	25	75	106	40	186	499	233	202	177	183	67	70
9	25	74	104	38	114	635	212	186	163	152	58	72
10	25	80	99	36	131	715	212	177	169	126	67	69
11	24	74	99	34	1930	593	219	193	233	111	63	58
12	25	69	110	32	3320	529	300	541	256	78	58	51
13	25	67	102	30	826	464	1300	680	196	80	66	45
14	24	69	101	29	493	405	2450	374	420	78	51	38
15	23	67	89	29	415	355	3010	296	1550	72	66	42
16	23	69	87	29	364	355	1270	292	730	72	67	75
17	23	70	75	29	300	420	933	292	322	74	64	80
18	23	124	70	30	296	394	781	252	215	74	56	124
19	26	205	82	31	341	327	642	219	171	78	45	104
20	29	226	64	32	2580	305	535	202	318	72	42	87
21	24	160	62	34	6380	279	499	186	447	80	39	61
22	22	121	60	35	2450	267	425	180	600	146	36	54
23	24	104	58	37	3020	248	394	166	593	131	34	44
24	26	309	55	39	7110	233	415	155	345	96	31	39
25	96	1970	53	41	2400	226	415	152	233	74	29	36
26	580	1120	51	41	1370	208	350	144	222	74	28	36
27	327	322	50	42	972	205	309	141	212	89	27	34
28	64	275	49	42	752	199	288	152	163	72	26	32
29	85	288	49	41	---	193	271	240	139	72	30	37
30	64	267	49	41	---	196	267	379	124	74	32	37
31	50	---	48	41	---	236	---	252	---	74	104	---
TOTAL	1867	6553	2829	1170	39361	12218	17608	7784	9495	4014	1841	2664
MEAN	60.2	218	91.3	37.7	1406	394	587	251	317	129	59.4	88.8
MAX	580	1970	216	47	7110	715	3010	680	1550	587	129	621
MIN	22	38	48	29	40	193	212	141	124	72	26	32
CFSM	.12	.43	.18	.07	2.76	.77	1.15	.49	.62	.25	.12	.17
IN.	.14	.48	.21	.09	2.87	.89	1.28	.57	.69	.29	.13	.19

CAL YR 1980 TOTAL 159748 MEAN 436 MAX 9760 MIN 22 CFSM .86 IN 11.65
WTR YR 1981 TOTAL 107404 MEAN 294 MAX 7110 MIN 22 CFSM .58 IN 7.83

01574500 CODORUS CREEK AT SPRING GROVE, PA

LOCATION.--Lat 39°52'43", long 76°51'13", York County, Hydrologic Unit 02050306, on right bank 15 ft (4.6 m) from downstream county highway bridge No. 132, 0.1 mi (0.2 km) downstream from unnamed tributary, 0.3 mi (0.5 km) downstream from east boundary of Spring Grove and 7 mi (11 km) southwest of York.

DRAINAGE AREA.--75.5 mi² (195.5 km²).

PERIOD OF RECORD.--May 1929 to September 1964, November 1965 to current year. Monthly discharge only for some periods, published in WSP 1302. October 1962 to September 1968, published as West Branch Codorus Creek at Spring Grove.

REVISED RECORDS.--WSP 1302: 1929-30, WSP 1502: 1932(M), 1933, 1935(M), 1940, 1942(M), 1943, 1944-46(M), 1951(M), 1955(m).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 430.86 ft (131.326 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 18, 1930, nonrecording gage, Jan. 18, 1930 to Sept. 9, 1941, water-stage recorder at site 0.9 mi (1.4 km) upstream and Sept. 10, 1941 to Sept. 30, 1964, water-stage recorder at site 0.8 mi (1.3 km) upstream, all at datum 5.64 ft (1.719 m) higher. Nov. 1 to Dec. 20, 1965, nonrecording gage about 40 ft (12 m) downstream from gage at unknown datum, Dec. 21, 1965 to Mar. 31, 1966, nonrecording gage at present site and datum.

REMARKS.--Records good. Daily discharges include water diverted around station by waste treatment plant of P.H. Glatfelter Company. Flow regulated by Lake Marburg (station 01574390) about 20 miles (32 km) upstream. Several observations of water temperature were made during the year.

COOPERATION.--Records of change in lake contents and daily diversion furnished by P.H. Glatfelter Company.

AVERAGE DISCHARGE.--50 years (1929-64, 1966-81), 79.2 ft³/s (2.243 m³/s), 14.25 in/yr (362 mm/yr), adjusted for diversion since March 1961 and for storage since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s (549 m³/s) June 22, 1972, gage height, 15.57 ft (4.746 m), from floodmark in gage shelter, from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of computations of flow over dam at gage height 6.80 ft (2.073 m) and at peak flow; no flow part of day Oct. 26, 1947; minimum daily, 0.6 ft³/s (0.017 m³/s) Sept. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 959 ft³/s (27.2 m³/s) Feb. 21, gage height, 5.20 ft (1.585 m) in gage well, 5.33 ft (1.625 m) from floodmark; minimum 5.7 ft³/s (0.16 m³/s) Jan. 31, Feb. 1, gage height, 1.72 ft (0.524 m), minimum daily, 12 ft³/s (0.34 m³/s) Jan. 31, Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	43	42	42	12	72	40	41	35	40	37	42
2	50	43	45	43	117	59	50	42	41	47	36	44
3	51	43	43	41	33	54	35	31	36	35	72	42
4	51	43	43	37	22	45	36	34	54	107	48	42
5	47	42	41	42	18	55	57	34	32	54	45	41
6	48	42	41	43	16	43	51	32	32	46	46	42
7	50	42	45	44	15	40	38	34	34	39	45	38
8	48	45	44	36	15	39	44	31	38	37	58	42
9	49	40	41	39	13	47	40	36	54	41	45	48
10	56	42	41	39	15	47	35	35	63	41	43	39
11	47	42	39	36	431	43	39	45	52	41	44	37
12	44	40	39	35	70	40	112	38	38	35	46	38
13	47	39	39	35	41	38	132	35	41	43	67	37
14	49	40	37	41	36	43	262	35	84	41	47	37
15	46	42	37	40	31	37	130	57	172	41	46	45
16	45	41	41	41	28	56	78	55	51	38	45	61
17	43	45	38	28	29	45	65	38	41	39	44	44
18	44	84	36	14	31	38	53	34	39	39	45	40
19	48	50	38	20	38	37	50	35	40	40	46	42
20	45	39	36	17	123	40	52	34	67	58	44	34
21	44	40	37	21	424	38	40	32	43	106	45	38
22	43	36	41	18	110	39	38	34	101	43	43	38
23	41	35	39	16	372	44	41	34	47	40	42	36
24	43	183	66	18	277	40	44	32	37	40	43	37
25	185	92	40	18	125	34	35	33	36	41	44	35
26	55	46	39	19	83	35	35	32	47	36	41	35
27	45	38	37	18	68	41	36	34	36	38	35	35
28	43	47	35	16	59	37	35	47	37	39	40	37
29	40	36	41	15	---	35	35	30	37	48	41	33
30	39	38	38	13	---	39	34	33	40	33	43	36
31	42	---	52	12	---	39	---	33	---	37	69	---
TOTAL	1578	1478	1271	897	2652	1339	1772	1130	1505	1403	1435	1195
MEAN	50.9	49.3	41.0	28.9	94.7	43.2	59.1	36.5	50.2	45.3	46.3	39.8
MAX	185	183	66	44	431	72	262	57	172	107	72	61
MIN	39	35	35	12	12	34	34	30	32	33	35	33
MEAN‡	18.9	32.3	14.5	10.8	164	62.4	119	52.4	56.9	38.8	18.8	12.9
CFSM‡	.25	.43	.19	.14	2.17	.83	1.58	.69	.75	.51	.25	.17
IN.‡	.29	.48	.22	.16	2.26	.96	1.76	.80	.84	.59	.29	.19

CAL YR 1980	TOTAL	28550	MEAN 78.0	MAX 549	MIN 35	MEAN‡	64.7	CFSM‡	.86	IN.‡	11.67
WTR YR 1981	TOTAL	17655	MEAN 48.4	MAX 431	MIN 12	MEAN‡	49.1	CFSM‡	,65	IN.‡	8.84

‡ Adjusted for change in contents in Lake Marburg.

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA

LOCATION.--Lat 39°55'14", long 76°44'57", York County, Hydrologic Unit 02050306, on right bank 100 ft (30 m) downstream from dam at pumping station of York Water Co., 200 ft (60 m) upstream from Conrail Bridge, 0.5 mi (0.8 km) upstream from mouth, and 3 mi (4.8 km) southwest of York.

DRAINAGE AREA.--117 mi² (303 km²).

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only prior to October 1931, published in WSP 1302. May 1925 to September 1927, gage heights and discharge measurements only in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1302: 1931. WSP 1502: 1932-33, 1941, 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 373.03 ft (113.700 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 21, 1928, nonrecording gage at site 180 ft (55 m) upstream at datum 5.00 ft (1.524 m) higher. Nonrecording gage June 22, 1972 to Jan. 12, 1973 at present site.

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flow by water plant above station. Some regulation during entire period of record from reservoirs of York Water Company, combined capacity, 2,636,000,000 gal (9.978 hm³). Diversion above station for municipal supply of city of York. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--54 years, 135 ft³/s (3.823 m³/s), 15.67 in/yr (398 mm/yr), adjusted for diversion and, since October 1966, for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s (756 m³/s) June 22, 1972, gage height, 22.62 ft (6.895 m), from floodmarks, from rating curve extended above 1,800 ft³/s (51.0 m³/s) on basis of slope-area, contracted-opening, and contracted-opening and flow-over-road measurements at gage heights 9.04 ft (2.755 m), 17.97 ft (5.477 m), and 22.62 ft (6.895 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,940 ft³/s (83.3 m³/s) Feb. 11, gage height, 6.14 ft (1.871 m); minimum 0.50 ft³/s (0.014 m³/s) Aug. 21, 23, Sept. 10; minimum gage height 0.48 ft (0.146 m) Jan. 30, 31, Feb. 7, 10; minimum daily 0.70 ft³/s (0.020 m³/s) Aug. 21, 23, Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	5.0	20	3.3	1.5	147	51	80	51	27	4.5	8.3
2	6.5	4.5	16	3.1	80	116	86	150	65	50	3.6	4.1
3	46	5.0	16	3.0	46	116	50	86	63	40	43	3.6
4	50	7.1	6.5	2.9	12	70	39	72	70	167	46	2.5
5	35	8.9	10	2.7	6.0	95	76	67	51	161	14	1.8
6	24	7.1	10	2.6	3.5	98	193	67	43	72	12	1.2
7	20	8.9	11	2.5	2.1	82	74	63	43	51	12	8.3
8	17	8.3	11	2.3	5.5	84	80	58	36	40	24	.85
9	7.7	6.5	10	2.2	2.8	93	70	54	46	40	61	10
10	12	15	8.3	2.1	4.5	91	74	58	65	28	27	2.1
11	17	4.1	3.6	2.1	1090	84	78	89	61	19	12	2.1
12	18	1.5	6.5	2.0	197	76	181	95	35	20	7.7	.70
13	15	2.5	16	2.0	56	72	212	61	31	23	8.9	1.0
14	7.7	3.2	12	2.0	45	65	473	58	134	14	10	5.0
15	5.5	3.2	8.3	2.0	48	63	362	226	161	9.5	5.5	6.0
16	4.1	6.0	14	2.1	40	86	260	226	65	6.5	21	18
17	4.5	12	11	2.2	40	82	239	114	54	9.5	9.5	6.0
18	14	74	6.5	2.4	35	63	187	70	43	8.3	1.8	8.9
19	34	21	9.5	2.7	48	67	158	78	51	13	1.1	10
20	11	3.6	3.6	3.3	233	58	124	76	58	24	1.3	13
21	8.3	3.6	2.6	5.0	787	53	116	70	50	181	.70	8.3
22	9.5	1.8	2.5	10	257	56	114	60	170	42	.85	2.8
23	8.9	1.3	2.8	13	920	56	107	56	102	20	.70	1.3
24	13	181	3.5	8.9	1080	48	158	56	51	11	1.1	1.8
25	136	141	2.8	8.9	310	46	102	53	35	21	6.5	4.1
26	70	42	2.6	12	243	43	95	51	109	23	2.1	4.5
27	28	26	2.5	12	196	40	65	42	50	21	1.5	3.5
28	7.7	39	2.4	11	128	35	78	56	31	10	.85	9.5
29	8.3	32	3.0	6.5	---	36	84	93	35	35	1.0	4.1
30	7.1	21	3.7	1.7	---	53	70	56	31	16	2.8	4.1
31	5.5	---	3.4	1.6	---	70	---	58	---	19	18	---
TOTAL	657.8	696.1	241.6	140.1	5916.9	2244	4056	2499	1890	1221.8	362.00	156.45
MEAN	21.2	23.2	7.79	4.52	211	72.4	135	80.6	63.0	39.4	11.7	5.22
MAX	136	181	20	13	1090	147	473	226	170	181	61	18
MIN	4.1	1.3	2.4	1.6	1.5	35	39	42	31	6.5	.70	.70
(†)	29.5	28.0	27.7	29.2	29.3	25.9	27.9	29.0	29.6	29.8	31.1	28.7
MEAN‡	52.8	54.1	34.5	32.7	247	98.3	163	110	92.6	69.2	40.8	33.9
CFSM‡	.45	.46	.29	.28	2.11	.84	1.39	.94	.79	.59	.35	.29
IN.‡	.52	.51	.33	.32	2.20	.97	1.55	1.08	.88	.68	.40	.32

CAL YR 1980 TOTAL 31903.30 MEAN 87.2 MAX 756 MIN 1.3 MEAN‡ 117 CFSM‡ 1.00 IN.‡ 13.56
WTR YR 1981 TOTAL 20081.75 MEAN 55.0 MAX 1090 MIN .70 MEAN‡ 84.4 CFSM‡ .72 IN.‡ 9.80

† Diversion for municipal supply of city of York, equivalent in cubic feet per second, furnished by York Water Co.

‡ Adjusted for diversion and change in reservoir contents.

01575500 CODORUS CREEK NEAR YORK, PA

LOCATION.--Lat 39°56'46", long 76°45'20", York County, Hydrologic Unit 02050306, on left bank 0.5 mi (0.8 km) upstream from Richland Avenue Bridge, 2 mi (3 km) downstream from South Branch Codorus Creek and 2 mi (3 km) southwest of York.

DRAINAGE AREA.--222 mi^2 (575 km^2).

PERIOD OF RECORD.--August 1940 to current year. October 1915 to August 1923, August 1926 to September 1932 (gage heights and discharge measurements only) in reports of Pennsylvania Department of Forests and Waters. Published as "at York" 1915-32.

GAGE.--Water-stage recorder. Datum of gage is 356.39 ft (108.628 m) National Geodetic Vertical Datum of 1929, Corps of Engineers benchmark. Prior to Sept. 30, 1932, nonrecording gage at site 1.6 mi (2.6 km) downstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flows by mills and pumping plant above station. Diversion above station for municipal supply of City of York. Flood flows regulated by Indian Rock Dam (station 01574700) and by three reservoirs (combined capacity, 21,385 mil gal (80.94 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 247 ft^3/s (6.995 m^3/s), 15.11 in/yr (384 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s (850 m^3/s) June 22, 1972, gage height, 26.36 ft (8.035 m), from floodmark in gage shelter, from rating curve extended above 6,600 ft^3/s (187 m^3/s) on basis of slope-area measurements at gage heights 26.36 ft (8.034 m), and 20.11 ft (6.130 m); minimum 3.0 ft^3/s (0.085 m^3/s) Oct. 25, 1966, gage height, 1.40 ft (0.427 m), result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,100 ft^3/s (87.8 m^3/s) Feb. 24, gage height, 8.32 ft (2.536 m); minimum, 16 ft^3/s (0.45 m^3/s) Jan. 31, gage height, 1.64 ft (0.500 m); minimum daily, 23 ft^3/s (0.65 m^3/s) Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	69	70	73	24	260	111	132	94	87	53	61
2	70	67	70	67	245	211	161	228	95	117	50	49
3	93	64	70	53	124	202	113	140	109	100	132	49
4	102	70	59	51	67	153	99	126	160	272	146	47
5	88	75	61	49	39	176	124	122	102	293	78	47
6	82	70	56	49	35	176	286	119	92	149	75	46
7	78	75	66	54	30	151	128	117	93	119	75	53
8	77	77	69	50	29	151	134	108	87	100	83	43
9	67	70	62	49	28	167	121	106	108	100	155	66
10	78	80	59	47	27	170	122	111	149	88	87	43
11	77	69	53	45	1320	157	121	153	138	80	77	42
12	73	66	55	43	352	151	288	167	93	78	70	41
13	75	66	64	41	126	140	364	115	87	85	85	40
14	67	67	59	40	108	132	769	80	296	78	67	44
15	64	69	56	38	102	128	594	95	375	69	62	52
16	62	72	67	37	93	159	387	117	159	62	78	87
17	61	78	62	37	88	163	352	136	124	67	66	56
18	70	193	52	36	88	130	286	146	102	64	55	52
19	99	108	56	40	102	128	240	142	111	69	55	53
20	77	77	49	36	349	122	207	132	149	77	55	49
21	69	70	49	34	1250	117	196	113	119	315	52	47
22	73	66	66	35	427	117	189	113	293	106	52	44
23	70	62	61	36	1020	121	178	94	193	77	50	42
24	75	332	73	33	1640	113	223	92	121	66	50	42
25	293	393	66	32	520	106	159	92	97	77	61	42
26	198	109	60	34	378	102	153	85	178	80	53	41
27	93	80	56	34	318	102	122	95	111	78	47	42
28	69	99	56	35	221	97	130	83	88	66	46	47
29	69	87	57	29	---	93	144	119	88	100	49	40
30	66	69	59	25	---	111	122	102	90	64	52	40
31	59	---	52	23	---	138	---	100	---	66	88	---
TOTAL	2664	2949	1870	1285	9150	4444	6623	3680	4101	3249	2204	1447
MEAN	85.9	98.3	60.3	41.5	327	143	221	119	137	105	71.1	48.2
MAX	293	393	73	73	1640	260	769	228	375	315	155	87
MIN	59	62	49	23	24	93	99	80	87	62	46	40
(†)	29.5	28.0	27.7	29.2	29.3	25.9	27.9	29.0	29.6	29.8	31.1	28.7
MEAN‡	70.7	128	68.8	47.5	432	188	309	164	173	128	72.7	49.9
CFSM‡	.32	.58	.29	.21	1.95	.85	1.39	.74	.78	.58	.33	.22
IN.‡	.37	.65	.33	.24	2.03	.98	1.55	.85	.87	.67	.38	.24

CAL YR 1980 TOTAL 67474 MEAN 184 MAX 1260 MIN 49 MEAN‡ 201 CFSM‡ .90 IN.‡ 12.31
WTR YR 1981 TOTAL 43666 MEAN 120 MAX 1640 MIN 23 MEAN‡ 150 CFSM‡ .68 IN.‡ 9.16

† Diversion for municipal supply of city of York, equivalent in cubic feet per second. Records of diversion and change in contents in four reservoirs furnished by York Water Co., P.H. Glatfelter Co., and Corps of Engineers.
‡ Adjusted for diversion and change in reservoir contents.

LAKE AND RESERVOIR IN CODORUS CREEK BASIN

01574390 LAKE MARBURG.--Lat 39°48'26", long 76°52'58", York County, Hydrologic Unit 02050306, at dam on West Branch Codorus Creek, 0.7 mi (1.1 km) upstream from Codorus Creek and 4.5 mi (7.2 km) south of Spring Grove. DRAINAGE AREA, 23.2 mi^2 (60.1 km^2). PERIOD OF RECORD, October 1972 to current year in reports of Geological Survey; July 1972 to September 1974 in files of P. H. Glatfelter Co., Spring Grove. Records for period December 1966 to June 1972 were lost in the flood of June 1972. NONRECORDING GAGE. Datum of gage is National Geodetic Vertical Datum of 1929.

Lake is formed by earthfill dam with two bascule spillway gates. Each is 7 ft (2 m) high and 106.5 ft (32.5 m) long. Elevation of top of gates is 623.0 ft (189.89 m). Top of dam is at elevation 627.0 ft (191.11 m). Storage began in December 1966. Capacity at elevation 627.0 ft (191.11 m) is 53,210 acre-ft (65.6 hm^3), at elevation 623.0 ft (189.89 m) normal pool is 47,680 acre-ft (58.8 hm^3) and at elevation 616.0 ft (187.76 m) crest of spillway is 39,430 acre-ft (48.6 hm^3). Lake is used for water supply and recreation. An average of about 3,380 acre-ft (4.17 hm^3) is diverted from Codorus Creek into the lake each year. Records furnished by P.H. Glatfelter Company.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 47,680 acre-ft (58.8 hm^3) many times elevation, 623.00 ft (189.890 m); minimum, 35,520 acre-ft (43.8 hm^3) Dec. 3, 1978 elevation, 612.20 ft (186.599 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 43,870 acre-ft (54.1 hm^3 July 5-10 elevation, 620.13 ft (189.016 m); minimum, 33,630 acre-ft (41.5 hm^3) Jan. 19, elevation, 610.33 ft (186.029 m).

01574700 INDIAN ROCK DAM.--Lat 39°55'22", long 76°45'14", York County, Hydrologic Unit 02050306, at dam on Codorus Creek, 0.1 mi (0.2 km) upstream from mouth of South Branch Codorus Creek, 0.3 mi (0.5 km) west of pumping station of York Water Co., and 3 mi (5 km) southwest of York. DRAINAGE AREA, 93.7 mi^2 (242.7 km^2). PERIOD OF RECORD, September 1962 to current year in reports of Geological Survey, September 1942 to August 1962 in files of Baltimore District, Corps of Engineers. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 435.0 ft (132.59 m). Reservoir completed in June 1942; storage began in June 1946. Capacity at elevation 435.0 ft (132.59 m) is 28,000 acre-ft (34.5 hm^3). No dead storage. Reservoir is used for flood control. Figures given herein represent total contents. Flood storage is regulated by three vertical-lift tractor gates. Water is stored only during high flows and released when downstream conditions warrant. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 30,200 acre-ft (37.2 hm^3) June 23, 1972 elevation, 436.44 ft (133.027 m); minimum, no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 500 acre-ft (61,600 m^3) Feb. 24, elevation, 386.97 ft (117.948 m); minimum, 7 acre-ft (8,639 m^3) Feb. 1, elevation, 371.25 ft (113.157 m)

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981 -

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01574390	Lake Marburg		01574700	Indian Rock Dam	
Sept. 30	615.90	39320	--	371.84	8.9	--
Oct. 31	614.00	37350	-32.0	371.77	8.4	- 0.01
Nov. 30	613.00	36340	-17.0	372.52	14.1	+ .10
Dec. 31	611.40	34710	-26.5	374.46	36.2	+ .36
CAL YR 1980	--	--	-13.3	--	--	+ .03
Jan. 31	610.30	33600	-18.1	373.50	23.8	- .2
Feb. 28	614.10	37450	+69.3	372.98	18.3	- .1
Mar. 31	615.25	38630	+19.2	372.13	10.9	- .12
Apr. 30	618.58	42180	+59.7	372.32	12.5	+ .03
May 31	619.50	43160	+15.9	372.23	11.7	- 0.0
June 30	619.87	43560	+ 6.7	372.38	12.9	+ .02
July 31	619.50	43160	- 6.5	372.22	11.7	- .02
Aug. 31	617.91	41470	-27.5	372.28	12.1	+ .01
Sept. 30	616.41	39870	-26.9	371.33	5.7	- .11
WTR YR 1981	--	--	+ 0.8	--	--	0

BEST DOCUMENT AVAILABLE

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA

LOCATION.--Lat 40°03'16", long 76°31'52", Lancaster County, Hydrologic Unit 02050306, on left bank 420 ft (128 m) upstream from Chickies Creek and 1 mi (2 km) downstream from Marietta. Records include flow of Chickies Creek.

DRAINAGE AREA.--25,990 mi^2 (67,310 km^2), approximately, includes that of Chickies Creek.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 1502: 1937.

GAGE.--Water-stage recorder. Datum of gage is 200.56 ft (61.131 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for periods of no gage-height record, Nov. 4 to Dec. 8, April 15-27, May 23 to June 16, and those for winter periods which are fair. Flow slightly regulated by 16 flood-control reservoirs, which have a combined capacity of 1,599,000 acre-ft (1.97 km^3). Some diurnal fluctuation at discharges below 8,000 ft^3/s (227 m^3/s) caused by hydroelectric plant 9.7 mi (15.6 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 36,920 ft^3/s (1,046 m^3/s), 19.29 in/yr (490 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080,000 ft^3/s (30,600 m^3/s) June 23, 1972, gage height, 64.54 ft (19.672 m), from floodmarks; minimum, 618 ft^3/s (17.5 m^3/s) Sept. 26, 1932, gage height, 30.89 ft (9.415 m), when York Haven powerplant was shut down in order to obtain current-meter measurements at low water; minimum daily, 1,380 ft^3/s (39.1 m^3/s) Sept. 26, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889 reached a stage of 58.2 ft (17.8 m) from floodmark, discharge about 630,000 ft^3/s (18,000 m^3/s)

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 316,000 ft^3/s (8,950 m^3/s) Feb. 24, gage height, 49.56 ft (15.106 m); minimum, 2,550 ft^3/s (72.2 m^3/s) Oct. 21, 22, 23, gage height, 31.75 ft (9.677 m)

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4100	11100	39900	8700	6600	109000	17700	66000	20400	22100	13100	5870
2	3950	10800	22400	8500	7300	89500	19300	91200	18500	21200	13300	5870
3	3890	9520	20400	8300	12000	74500	21400	80400	18000	20800	12200	5930
4	3740	8530	18600	8200	17000	66300	24000	64300	18400	21800	12000	6220
5	3980	7850	22200	7700	19000	60000	26100	52900	21300	24000	10600	5930
6	4040	7110	25100	7400	20000	52100	27200	45000	25800	23200	10200	6120
7	4100	6080	26000	7200	16400	45900	27400	38300	27600	23300	9520	7080
8	4400	6050	24400	6900	15200	41200	26300	33800	26200	22300	8830	7730
9	4160	6080	21100	6700	15600	36600	24600	29200	23100	20300	8970	8440
10	4070	5690	19000	6600	17200	33600	23500	25700	21100	18600	9420	9010
11	3740	5680	18100	6400	27700	31600	23100	24900	22700	16900	9840	10100
12	4040	6230	18900	6300	132000	30200	23800	28200	30500	14600	9430	12100
13	4220	6760	22800	6200	143000	29100	27300	43400	26500	13200	9420	12100
14	4010	6900	23800	6100	124000	27900	41900	74600	23900	12400	9300	12100
15	3620	6760	21600	6100	99600	26300	63200	71000	26000	10900	8420	11100
16	3710	7370	18900	6000	80600	25400	70000	62500	38300	10200	8020	11000
17	3770	8260	16700	6000	66700	25400	69000	65000	47600	9610	7370	9760
18	3640	7810	14700	6000	58600	24300	60700	68900	46900	8880	7070	9260
19	4150	7700	13900	6000	57100	23900	55400	63500	43600	8690	7040	8620
20	4200	8040	11200	6000	91800	22800	48500	53400	36500	8350	6830	8070
21	3630	7780	8810	6000	198000	21200	42700	44700	38400	9480	6700	7750
22	3610	7630	8000	6000	266000	20600	39100	36800	38100	11700	6290	7950
23	3590	7740	7300	6100	247000	19700	36000	33800	34900	12900	6190	7660
24	3700	11600	6800	6200	296000	18800	34600	29400	35100	17600	6180	9940
25	4360	14800	6400	6200	296000	17900	33700	26500	36600	17100	5750	7580
26	6810	14400	6000	6300	234000	17400	34500	24500	37000	13200	5860	6530
27	6210	16900	5500	6300	170000	16600	36700	22400	34600	12600	5590	6670
28	6550	30300	6400	6300	134000	16300	35800	20700	30000	13200	5160	6520
29	9840	39000	7850	6300	---	16100	35200	21500	27900	15600	4740	9150
30	11100	42800	9420	6300	---	16100	35700	22200	24200	13900	4770	12400
31	10000	---	9100	6400	---	16700	---	21100	---	12600	5570	---
TOTAL	148930	343270	501280	205700	2868400	1073000	1084400	1385800	899700	481210	253680	254560
MEAN	4804	11440	16170	6635	102400	34610	36150	44700	29990	15520	8183	8485
MAX	11100	42800	39900	8700	296000	109000	70000	91200	47600	24000	13300	12400
MIN	3590	5680	5500	6000	6600	16100	17700	20700	18000	8350	4740	5870
CFSM	.19	.44	.62	.26	3.94	1.33	1.39	1.72	1.15	.60	.32	.33
IN.	.21	.49	.72	.29	4.11	1.54	1.55	1.98	1.29	.69	.36	.36

CAL YR 1980 TOTAL 9901140 MEAN 27050 MAX 220000 MIN 3590 CFSM 1.04 IN 14.17
WTR YR 1981 TOTAL 9499930 MEAN 26030 MAX 296000 MIN 3590 CFSM 1.00 IN 13.60

01576500 CONESTOGA RIVER AT LANCASTER, PA

LOCATION.--Lat 40°03'00", long 76°16'39", Lancaster County, Hydrologic Unit 02050306, on left bank at Penn Central Railroad bridge, 50 ft) (15 m) downstream from small tributary, 500 ft (150 m) downstream from diversion dam at city water works, and 0.75 mi (1.21 km) east of Lancaster.

DRAINAGE AREA.--324 mi^2 (839 km^2).

PERIOD OF RECORD.--September 1928 to March 1932; August, September 1932; April 1933 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1973, published as Conestoga Creek at Lancaster.

REVISED RECORDS.--WSP 1202: Drainage area. WSP 1502: 1943(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 245.63 ft (74.868 m) National Geodetic Vertical Datum of 1929. Prior to May 1, 1933, at site 600 ft (183 m) upstream at different datum, excluding small tributary.

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flow by waterworks and mill above station. Diversion above station for municipal supply of city of Lancaster. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--51 years, (1928-31, 1933-81), 399 ft^3/s (11.30 m^3/s), 16.72 in/yr (425 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,300 ft^3/s (2,500 m^3/s) June 23, 1972, gage height 27.80 ft (8.473 m), from floodmark, from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of slope-area measurement and contracted-opening measurement of peak flows; minimum daily discharge, 7 ft^3/s (0.20 m^3/s) Aug. 11, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,790 ft^3/s (50.7 m^3/s) May 16, gage height, 5.75 ft (1.753 m), maximum gage height, 5.75 ft (1.753 m) Apr. 14, May 16; minimum 36 ft^3/s (1.02 m^3/s) Sept. 13, 14, gage height, 2.62 ft (0.799 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	64	118	73	56	208	180	180	127	108	70	61
2	80	61	113	67	100	191	311	268	141	157	68	59
3	108	70	113	63	95	170	198	222	163	268	84	52
4	121	66	108	60	94	154	147	177	226	316	84	54
5	105	74	98	59	93	167	170	160	167	666	84	48
6	103	74	95	58	90	180	508	147	132	289	76	49
7	93	72	100	63	84	167	260	154	121	212	63	51
8	86	66	98	61	86	170	198	138	121	163	64	56
9	80	64	100	57	100	212	187	124	115	147	59	66
10	84	78	103	56	99	205	198	121	121	135	80	80
11	78	74	98	56	745	191	212	160	157	118	59	70
12	78	70	98	54	666	198	430	276	132	113	57	64
13	74	61	86	52	248	198	442	222	105	110	52	37
14	76	64	86	51	187	170	753	163	293	103	54	40
15	80	64	80	51	154	157	857	170	260	98	47	47
16	76	48	91	59	141	160	413	1100	191	93	52	74
17	74	74	93	63	141	205	386	386	151	95	63	105
18	63	118	88	59	154	154	360	272	124	74	54	108
19	110	187	88	63	173	157	298	236	110	82	56	138
20	118	121	74	64	244	138	276	215	110	95	49	95
21	100	100	70	68	442	129	252	201	124	118	46	74
22	84	84	68	66	360	124	226	184	370	129	43	64
23	91	80	68	66	325	127	222	167	325	115	37	59
24	86	212	72	66	966	121	236	157	170	93	48	56
25	167	808	61	67	460	121	215	151	144	76	47	51
26	355	252	56	66	311	113	198	151	233	93	45	46
27	138	167	54	65	256	108	184	141	177	108	39	44
28	95	160	58	64	212	103	184	151	135	103	38	47
29	82	154	72	63	---	98	215	151	127	86	68	54
30	78	132	86	61	---	110	208	144	110	91	57	54
31	72	---	80	58	---	222	---	129	---	78	52	---
TOTAL	3111	3719	2673	1899	7082	4928	8924	6618	4982	4532	1795	1903
MEAN	100	124	86.2	61.3	253	159	297	213	166	146	57.9	63.4
MAX	355	808	118	73	966	222	857	1100	370	666	84	138
MIN	63	48	54	51	56	98	147	121	105	74	37	37
(†)	15.0	14.2	13.9	15.7	15.4	14.7	14.2	13.0	13.8	13.7	15.3	16.0
MEAN‡	115	138	100	77.0	268	174	311	226	180	160	73.2	79.4
CFSM‡	.35	.43	.31	.24	.83	.54	.96	.70	.56	.49	.23	.25
IN.‡	.40	.48	.36	.28	.86	.62	1.07	.81	.62	.56	.26	.28

CAL YR 1980 TOTAL 106535 MEAN 291 MAX 1780 MIN 48 MEAN‡ 303 CFSM‡ .94 IN.‡ 12.73
WTR YR 1981 TOTAL 52166 MEAN 143 MAX 1100 MIN 37 MEAN‡ 157 CFSM‡ .48 IN.‡ 6.60

† Diversion, equivalent in cubic feet per second, for municipal supply, furnished by the city of Lancaster.
‡ Adjusted for diversion.

01576771 SITE NO. 1 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA

LOCATION.--Lat 39°59'28", long 76°11'14", Lancaster County, Hydrologic Unit 02050306, on right bank 25 ft (7.6 m) downstream from North Star Road (T477), 0.58 mi (0.93 km) north of Strasburg, and 0.88 mi (1.42 km) upstream from mouth.

DRAINAGE AREA.--0.56 mi² (1.45 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 380 ft (116 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 440 ft³/s (12.5 m³/s) Sept. 6, 1979, gage height, 4.35 ft (1.326 m); minimum, 0.03 ft³/s (.001 m³/s) Oct. 17, 18, 1980, gage height, 0.78 ft (0.238 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1980 to May 1981, 46 ft³/s (1.30 m³/s), Feb. 2, gage height 2.21 ft (0.674 m), no peaks above base of 55 ft³/s (1.56 m³/s); minimum 0.03 ft³/s (0.001 m³/s) Oct. 17, 18, gage height 0.78 ft (0.238 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.05	.06	.07	.27	.48	1.1	1.8				
2	.17	.05	.13	.09	3.2	.48	.52	.77				
3	.30	.07	.07	.09	.44	.42	.36	.52				
4	.07	.29	.05	.09	.14	.42	.26	.46				
5	.07	.05	.07	.09	.24	.63	1.3	.31				
6	.09	.07	.07	.09	.18	.65	.44	.36				
7	.12	.07	.07	.09	.21	.48	.39	.41				
8	.09	.09	.06	.09	.78	.55	.42	.48				
9	.09	.10	.09	.09	.26	.55	.55	.55				
10	.08	.08	.07	.09	.37	.52	.36	.79				
11	.07	.07	.07	.09	3.5	.59	.60	1.5				
12	.07	.06	.09	.08	.44	.48	.54	.52				
13	.06	.10	.09	.08	.24	.45	.51	.34				
14	.07	.10	.09	.08	.26	.42	2.2	.34				
15	.06	.10	.09	.08	.26	.46	.71	2.7				
16	.06	.10	.26	.08	.28	.76	.48	.63				
17	.03	.54	.09	.08	.29	.55	.55	.46				
18	.37	1.1	.08	.08	.29	.48	.55	.42				
19	.08	.06	.08	.08	.22	.52	.55	.42				
20	.04	.05	.09	.08	.52	.48	.43	.42				
21	.10	.05	.09	.09	.41	.36	.36	.39				
22	.10	.07	.09	.09	.38	.42	.40	.36				
23	.09	.08	.09	.11	1.9	.48	1.1	.36				
24	.08	3.3	.09	.14	.78	.52	.53	.36				
25	3.1	.18	.09	.14	.48	.46	.34	.36				
26	.10	.09	.09	.15	.39	.26	.37	.39				
27	.06	.08	.09	.18	.46	.36	.37	.39				
28	.06	.18	.10	.18	.59	.39	.52	.36				
29	.07	.07	.11	.18	---	.39	.55	.36				
30	.07	.10	.11	.15	---	.62	.52	.36				
31	.07	---	.11	.15	---	.39	---	.37				
TOTAL	5.96	7.40	2.83	3.25	17.78	15.02	17.88	18.26				
MEAN	.19	.25	.091	.10	.64	.48	.60	.59				
MAX	3.1	3.3	.26	.18	3.5	.76	2.2	2.7				
MIN	.03	.05	.05	.07	.14	.26	.26	.31				
CFSM	.32	.42	.15	.17	1.09	.81	1.02	1.00				
IN.	.38	.47	.18	.20	1.12	.95	1.13	1.15				

CAL YR 1980 TOTAL 135.06 MEAN .37 MAX 3.4 MIN .03 CFSM .63 IN 8.50

01576771 SITE NO. 1 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

REMARKS.--Revisions to previously published pesticide data are shown under "REVISED PESTICIDE ANALYSES."

REVISED PESTICIDE ANALYSES, JUNE TO SEPTEMBER 1979

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SIMA- ZINE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)
JUN 1979					
18...	1600	--	.39	.00	.0
AUG					
07...	1255	--	.18	.10	.0
29...	1430	--	.24	.00	.0
SEP					
05...	1648	--	.18	.00	.0
05...	1918	--	21	.00	.0
05...	1951	--	73	.00	.0
06...	0001	--	44	.00	.0
06...	0255	--	332	.00	.0
06...	0848	--	2.3	.00	.0

REVISED PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SIMA- ZINE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)
OCT 1979					
23...	1045	--	.57	.00	.0
NOV					
19...	1515	--	.46	.00	.0
25...	1540	1.6	--	.00	.0
26...	0740	2.8	--	.00	.0
26...	1630	1.8	--	.00	.0
DEC					
13...	1100	1.5	--	.60	.0
19...	1310	--	.39	.00	.0
25...	0050	5.3	--	1.4	.0
JAN 1980					
11-12	--	3.0	--	.70	.0
18-19	--	2.1	--	.60	.0
22...	0930	--	.63	.00	.0
FEB					
14...	1525	--	.36	.00	.0
22...	0450	1.2	--	.00	.0
MAR					
10-11	--	1.5	--	.90	.0
13-14	--	3.3	--	.50	.0
16...	1330	1.5	--	.80	.0
21...	0500	3.2	--	.50	.0
31-31	--	E3.4	--	.30	.0
APR					
01-01	--	E3.4	--	.30	.0
04...	0310	3.6	--	.50	.0
08...	0940	--	.74	.00	.0
09...	0620	3.9	--	.50	.0
09-10	--	2.9	--	.20	.0
14...	1310	--	.42	.10	.0
14...	1416	--	6.9	.10	.0
14...	1505	--	2.1	.00	.0
14...	2135	--	.85	.10	.0
27...	0540	2.2	--	.00	.0
27-28	--	5.8	--	.00	.0
28-29	--	E3.4	--	.00	.0
30...	1045	2.2	--	.00	.0
30-30	--	7.6	--	.10	.0
MAY 1980					
01-01	--	7.6	--	.10	.0
08...	1445	--	.55	.10	.0
12...	0635	2.6	--	.00	.0
12...	2000	1.8	--	.00	.1
13...	0222	4.9	--	.90	.0
21...	0100	1.8	--	.30	.0
28...	1210	--	.36	.00	.0
31...	2005	3.7	--	.20	.0
JUN					
07-08	--	E2.9	--	.14	.0
09...	2010	E1.6	--	.08	.0
15...	1600	4.5	--	.20	.0
15-16	--	2.1	--	.10	.0
20...	0925	--	.26	.00	.0
28...	1940	2.6	--	.00	.1
29...	0400	1.0	--	.00	.0
29...	1730	1.2	--	.00	.0
29-30	--	11	--	.00	.0
JUL					
15...	0915	--	.14	.00	.0
16...	1620	7.4	--	.00	.0
22...	1755	5.4	--	3.6	.0
AUG					
04...	1010	--	.14	1.0	.0
10...	2220	1.2	--	.00	.0
11...	1935	--	.09	.00	.0
15...	1130	.66	--	.00	.0
31...	0430	1.5	--	.00	.0
SEP					
02...	1025	--	.09	.00	.0
14...	1155	1.7	--	.00	.0
25...	0800	.66	--	.10	.0
26...	0020	5.6	--	.00	.0

E = Estimated value.

BEST DOCUMENT AVAILABLE

01576771 SITE NO. 1 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT												
01...	0940	--	.14	697	.080	.080	5.3	3.5	.080	.060	.45	.41
02...	1815	.88	--	392	.160	.140	2.8	2.7	.540	.530	2.40	1.5
03...	1845	1.4	--	246	--	--	--	--	--	--	--	--
18...	1555	2.0	--	105	.080	.060	1.1	1.1	.480	.420	3.00	1.0
25...	0545	7.6	--	134	.060	.030	.68	.20	.410	.330	2.50	.46
25...	1230	--	5.1	135	--	--	--	--	--	--	--	--
25...	1350	--	1.0	218	--	--	--	--	--	--	--	--
25...	1815	1.1	--	249	--	--	--	--	--	--	--	--
NOV												
04...	0855	1.1	--	386	.150	.150	2.8	2.8	.570	.570	1.60	1.6
08...	0620	.34	--	559	.160	.160	4.9	4.9	.310	.090	.87	.19
17-18	--	5.0	--	186	.050	.040	.71	.70	.360	.360	.83	.65
24...	0800	5.6	--	153	.050	.040	1.3	1.3	.340	.300	1.90	.88
24...	1320	--	5.4	137	--	--	--	--	--	--	--	--
DEC												
02...	1420	--	.07	687	.170	.160	6.0	6.0	.010	<.010	.55	.33
09...	1725	.36	--	597	.130	.110	4.3	4.3	.240	.230	.98	.63
17...	0940	--	.09	624	.050	.050	6.1	5.6	.030	.030	.24	.15
JAN												
14...	1000	--	.08	814	.050	.050	8.8	7.5	.180	.180	.29	.29
FEB												
01...	0945	--	11	283	--	--	--	--	--	--	--	--
01...	1015	--	9.2	278	--	--	--	--	--	--	--	--
01...	2245	--	1.4	656	--	--	--	--	--	--	--	--
01...	2345	--	2.2	644	--	--	--	--	--	--	--	--
02...	0045	--	1.3	492	--	--	--	--	--	--	--	--
02...	0145	--	.71	476	--	--	--	--	--	--	--	--
02...	0315	--	.48	482	--	--	--	--	--	--	--	--
02...	0545	--	.55	518	--	--	--	--	--	--	--	--
02...	0815	--	2.0	445	--	--	--	--	--	--	--	--
02...	0845	--	22	337	--	--	--	--	--	--	--	--
02...	0915	--	16	249	--	--	--	--	--	--	--	--
11...	0355	--	1.4	561	.430	.400	4.9	4.3	6.40	5.40	--	--
11...	0925	--	8.1	355	.320	.280	2.4	2.4	3.40	3.20	9.70	4.8
11...	1135	--	8.1	347	.320	.280	2.7	2.7	4.00	2.90	9.10	3.7
11...	1245	--	12	333	.350	.300	2.9	2.8	3.50	3.20	8.00	3.9
11...	1535	--	3.3	409	.480	.460	7.0	6.5	4.20	3.60	12.0	6.7
11...	1815	--	1.3	497	.460	.440	6.9	6.7	3.30	3.30	8.80	5.1
20...	0530	.83	--	496	.080	.070	2.9	2.9	.240	.230	1.40	.67
23...	0605	--	1.8	--	.090	.090	2.3	2.3	.530	.490	2.70	.95
23...	1500	--	3.3	288	--	--	--	--	--	--	--	--
23...	1515	--	3.1	299	--	--	--	--	--	--	--	--
23...	1730	--	16	282	.210	.050	1.3	1.1	.910	.570	12.0	1.5
23...	2100	--	2.0	379	.050	.050	2.5	2.4	.480	.480	1.50	.87
24...	0730	--	.84	557	.160	.160	7.0	6.5	.220	.220	.61	.36
25...	1310	--	.42	508	.080	.070	5.7	5.8	.100	.060	.62	.31
28...	1845	--	1.4	614	--	--	--	--	--	--	--	--
28...	1945	--	1.3	402	--	--	--	--	--	--	--	--
MAR												
11...	1220	--	.85	599	--	--	--	--	--	--	--	--
11...	1320	--	.97	758	--	--	--	--	--	--	--	--
16...	1000	--	1.4	461	--	--	--	--	--	--	--	--
16...	1030	--	1.3	658	--	--	--	--	--	--	--	--
16...	1230	--	1.3	431	--	--	--	--	--	--	--	--
16...	1330	--	2.0	379	--	--	--	--	--	--	--	--
16...	1500	--	1.3	361	--	--	--	--	--	--	--	--
17...	1100	--	.55	658	.120	.120	5.4	5.4	.100	.090	1.50	.56
30...	1150	.92	--	472	.140	.130	3.0	2.9	.370	.330	2.10	.47
APR												
01...	1110	--	.85	729	--	--	--	--	--	--	--	--
01...	1600	2.3	--	257	.110	.060	1.7	1.7	.710	.610	5.00	1.1
01...	1630	--	5.1	--	--	--	--	--	--	--	--	--
05...	1230	2.9	--	224	.080	.050	1.5	1.4	.300	.240	1.80	1.1
08...	0915	--	.42	645	.070	.060	4.3	4.3	.110	.100	1.50	.53
09...	1205	1.5	--	368	--	--	--	--	--	--	--	--
11...	1040	1.4	--	331	.070	.060	2.4	2.3	.230	.230	1.50	.84
12-13	--	.93	--	429	.070	.070	3.1	2.9	.300	.300	.93	.55
14...	0550	4.0	--	225	.060	.040	1.4	1.3	.260	.240	2.50	.33
14...	1630	1.7	--	367	.050	.050	3.1	3.0	.300	.300	1.40	1.1
23...	1850	4.5	--	217	.090	.050	1.4	1.3	.500	.380	8.20	1.5
28...	1305	--	.93	661	--	--	--	--	--	--	--	--
MAY												
01...	1515	--	1.6	558	--	--	--	--	--	--	--	--
01...	1615	--	3.6	237	--	--	--	--	--	--	--	--
01...	1645	--	4.0	194	--	--	--	--	--	--	--	--
01...	1745	--	5.8	161	--	--	--	--	--	--	--	--
01...	1815	--	5.8	148	--	--	--	--	--	--	--	--
01...	1845	--	6.0	138	--	--	--	--	--	--	--	--
01...	1945	--	4.5	143	--	--	--	--	--	--	--	--
01...	2015	--	4.7	136	--	--	--	--	--	--	--	--
01...	2045	--	4.0	152	--	--	--	--	--	--	--	--
01...	2245	--	3.8	169	--	--	--	--	--	--	--	--
02...	0015	--	1.6	250	--	--	--	--	--	--	--	--
02...	0215	--	.93	377	--	--	--	--	--	--	--	--
11...	1435	2.0	--	220	.060	.050	1.4	1.3	.410	.390	2.30	1.2
27...	0925	--	.39	550	.280	.280	3.0	3.0	.170	.170	3.00	1.6

01576771 SITE NO. 1 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	AMETRYNE TOTAL	ATRATONE, TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)
OCT												
01...	5.8	3.9	.500	.470	.440	.420	1.7	.6	<.10	<.10	.20	<.10
02...	5.2	4.2	1.60	1.10	1.00	1.00	16	4.2	<.10	<.10	.20	<.10
03...	--	--	--	--	--	--	--	--	--	--	--	--
18...	4.1	2.1	1.70	.480	.600	.440	11	16	<.10	<.10	<.10	<.10
25...	3.2	.66	1.40	.520	.660	.480	7.7	10	<.10	<.10	.10	<.10
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
04...	4.4	4.4	2.00	2.00	1.60	1.60	16	4.4	<.10	<.10	.20	<.10
08...	5.8	5.1	.990	.920	.830	.800	3.2	1.1	.10	<.10	.20	<.10
17-18	1.5	1.4	.260	.130	.120	.110	13	--	<.10	<.10	<.10	<.10
24...	3.2	2.2	1.20	.500	.540	.460	5.8	5.7	<.10	<.10	28	<.10
24...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
02...	6.6	6.3	1.10	.990	.890	.870	3.4	1.4	<.10	<.10	.20	<.10
09...	5.3	4.9	1.80	1.60	1.40	1.30	.6	2.8	<.10	<.10	.20	<.10
17...	6.3	5.8	.500	.470	.450	.450	7.0	.4	<.10	<.10	.10	<.10
JAN												
14...	9.1	7.8	.670	.650	.600	.580	1.2	.3	<.10	<.10	.10	<.10
FEB												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	3.10	2.40	3.10	2.40	48	4.0	<.10	<.10	.50	<.10
11...	12	7.2	2.80	1.70	2.10	1.60	29	>8.0	<.10	<.10	.60	<.10
11...	12	6.4	3.20	1.70	2.40	1.60	29	>8.0	<.10	<.10	.60	<.10
11...	11	6.7	2.60	1.60	2.20	1.60	27	>8.0	<.10	<.10	.80	<.10
11...	19	13	2.70	1.80	2.30	1.80	32	6.0	<.10	<.10	1.6	<.10
11...	16	12	2.00	1.40	1.80	1.40	27	3.5	<.10	<.10	1.2	<.10
20...	4.3	3.6	.830	.690	.620	.580	6.7	.2	<.10	<.10	<.10	<.10
23...	5.0	3.3	1.10	.340	.380	.290	4.7	6.6	<.10	<.10	<.10	<.10
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	13	2.6	2.90	.240	.790	.210	4.6	3.7	<.10	<.10	<.10	<.10
23...	4.0	3.3	1.50	.770	1.20	.690	6.9	2.2	<.10	<.10	<.10	<.10
24...	7.2	7.0	.280	.210	.190	.190	5.5	.7	<.10	<.10	.10	<.10
25...	6.3	5.9	.420	.340	.330	.310	2.7	.8	<.10	<.10	.10	<.10
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	6.9	6.0	1.00	.910	.810	.720	5.1	2.4	<.10	<.10	<.10	<.10
30...	5.1	3.4	1.40	.760	.820	.720	8.3	7.5	<.10	<.10	<.10	<.10
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	6.7	2.8	2.30	.380	.550	.340	7.1	16	<.10	<.10	.10	<.10
01...	--	--	--	--	--	--	--	--	--	--	--	--
05...	3.3	2.5	1.30	.330	.410	.300	6.0	6.8	<.10	<.10	<.10	<.10
06...	5.8	4.8	.690	.510	.450	.380	4.2	2.9	<.10	<.10	<.10	<.10
09...	--	--	--	--	--	--	--	--	--	--	--	--
11...	3.9	3.1	.790	.420	.400	.370	5.0	3.8	<.10	<.10	.20	<.10
12-13	4.0	3.5	.520	.380	.370	.320	4.2	6.4	--	--	--	--
14...	3.9	1.6	.640	.330	.410	.290	8.0	9.3	<.10	<.10	<.10	<.10
14...	4.5	4.1	.490	.250	.240	.170	5.2	2.4	<.10	<.10	<.10	<.10
23...	9.6	2.8	2.20	.320	.430	.270	5.5	17	<.10	<.10	<.10	<.10
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
11...	3.7	2.5	.760	.260	.210	.210	4.7	5.0	<.10	<.10	1.0	<.10
27...	6.0	4.6	.710	.450	.430	.340	6.5	1.8	<.10	<.10	.10	<.10

BEST DOCUMENT AVAILABLE

01576771 SITE NO. 1 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	CYPRAZINE TOTAL (UG/L)	PROMETONE TOTAL (UG/L)	PROMETRYNE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETONE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)	ALACHLOR (UG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
01...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	1	.00	100
02...	<.10	.3	<.1	<.10	.30	<.10	<.1	<.1	126	.30	100
03...	--	--	--	--	--	--	--	--	266	1.0	97
18...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	299	1.6	99
25...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	527	11	97
25...	--	--	--	--	--	--	--	--	369	5.1	86
25...	--	--	--	--	--	--	--	--	37	.10	97
25...	--	--	--	--	--	--	--	--	59	.18	78
NOV											
04...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	76	.23	95
08...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	18	.02	95
17-18	<.10	<.1	<.1	<.10	<.10	<.10	<.1	--	203	2.7	89
24...	<.10	<.1	<.1	.80	.51	<.10	<.1	.4	331	5.0	96
24...	--	--	--	--	--	--	--	--	132	1.9	87
DEC											
02...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	8	.00	86
09...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	72	.07	82
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	6	.00	72
JAN											
14...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	1	.00	--
FEB											
01...	--	--	--	--	--	--	--	--	2110	64	88
01...	--	--	--	--	--	--	--	--	1410	35	93
01...	--	--	--	--	--	--	--	--	667	2.5	19
01...	--	--	--	--	--	--	--	--	730	4.3	70
02...	--	--	--	--	--	--	--	--	223	.78	94
02...	--	--	--	--	--	--	--	--	127	.24	96
02...	--	--	--	--	--	--	--	--	74	.10	99
02...	--	--	--	--	--	--	--	--	54	.08	100
02...	--	--	--	--	--	--	--	--	134	.72	99
02...	--	--	--	--	--	--	--	--	5280	318	92
02...	--	--	--	--	--	--	--	--	3920	169	85
11...	<.10	<.1	<.1	<.10	1.7	<.10	<.1	<.1	107	.40	85
11...	<.10	<.1	<.1	<.10	1.0	<.10	<.1	<.1	1190	26	97
11...	<.10	<.1	<.1	<.10	1.1	<.10	<.1	<.1	1480	32	89
11...	<.10	<.1	<.1	<.10	2.3	<.10	<.1	<.1	2780	94	84
11...	<.10	<.1	<.1	<.10	.70	<.10	<.1	<.1	383	3.4	98
11...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	145	.51	95
20...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	53	.12	87
23...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	--	--	--
23...	--	--	--	--	--	--	--	--	589	5.2	99
23...	--	--	--	--	--	--	--	--	606	5.1	98
23...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	5620	243	97
23...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	146	.79	97
24...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	60	.14	50
25...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	43	.05	71
28...	--	--	--	--	--	--	--	--	94	.36	95
28...	--	--	--	--	--	--	--	--	116	.41	98
MAR											
11...	--	--	--	--	--	--	--	--	64	.15	96
11...	--	--	--	--	--	--	--	--	116	.30	97
16...	--	--	--	--	--	--	--	--	99	.37	98
16...	--	--	--	--	--	--	--	--	84	.29	94
16...	--	--	--	--	--	--	--	--	57	.20	96
16...	--	--	--	--	--	--	--	--	264	1.4	95
16...	--	--	--	--	--	--	--	--	96	.34	94
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	12	.02	100
30...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	368	.91	98
APR											
01...	--	--	--	--	--	--	--	--	76	.17	92
01...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	468	2.9	83
01...	--	--	--	--	--	--	--	--	4220	58	98
05...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	727	5.7	97
08...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	12	.01	100
09...	--	--	--	--	--	--	--	--	220	.89	99
11...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	180	.68	99
12-13	--	--	--	--	--	--	--	--	28	.07	100
14...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	694	7.5	93
14...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	116	.53	100
23...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	1650	20	93
28...	--	--	--	--	--	--	--	--	192	.48	92
MAY											
01...	--	--	--	--	--	--	--	--	221	.95	91
01...	--	--	--	--	--	--	--	--	465	4.5	96
01...	--	--	--	--	--	--	--	--	381	4.1	95
01...	--	--	--	--	--	--	--	--	634	9.9	96
01...	--	--	--	--	--	--	--	--	460	7.2	95
01...	--	--	--	--	--	--	--	--	360	5.8	94
01...	--	--	--	--	--	--	--	--	211	2.6	96
01...	--	--	--	--	--	--	--	--	350	4.4	95
01...	--	--	--	--	--	--	--	--	149	1.6	99
01...	--	--	--	--	--	--	--	--	94	.96	97
02...	--	--	--	--	--	--	--	--	52	.22	94
02...	--	--	--	--	--	--	--	--	21	.05	89
11...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	377	2.0	97
27...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	16	.02	90

01576772 SITE NO. 2 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA

LOCATION.--Lat 39°59'33", long 76°11'17", Lancaster County, Hydrologic Unit 02050306, on right bank, 50 ft (15 m) upstream from Jackson Street (LR 36024), 0.72 mi (1.2 km) north of Strasburg, and 0.73 mi (1.2 km) upstream from mouth.

DRAINAGE AREA.--0.59 mi^2 (1.53 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 370 ft (113 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 485 ft^3/s (13.7 m^3/s) Sept. 7, 1979, gage height 4.72 ft (1.439 m), from rating curve extended above 200 ft^3/s (5.66 m^3/s) on basis of computation of peak flow through contracted-opening and flow over road; minimum 0.03 ft^3/s (0.001 m^3/s) Oct. 16, 17, 1980, gage height, 0.87 ft (0.265 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1980 to May 1981, 50 ft^3/s (1.52 m^3/s), Feb 2, gage height 2.00 ft (0.610 m), no peaks above base of 55 ft^3/s (1.56 m^3/s); minimum 0.03 ft^3/s (0.001 m^3/s) Oct 16, 17, gage height 0.87 ft (0.265 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.05	.07	.07	.28	.49	1.1	2.0				
2	.18	.06	.16	.09	3.8	.49	.52	.82				
3	.30	.07	.09	.09	.44	.43	.37	.52				
4	.07	.30	.07	.09	.14	.43	.27	.46				
5	.07	.06	.08	.09	.27	.64	1.5	.32				
6	.10	.09	.08	.09	.18	.65	.44	.37				
7	.12	.07	.08	.09	.21	.49	.40	.41				
8	.09	.11	.07	.09	.86	.56	.43	.49				
9	.10	.10	.11	.09	.27	.56	.56	.56				
10	.10	.08	.07	.09	.38	.52	.37	.81				
11	.08	.07	.07	.09	4.0	.59	.62	1.6				
12	.08	.06	.09	.08	.48	.49	.56	.52				
13	.07	.11	.09	.08	.25	.46	.53	.34				
14	.08	.11	.09	.08	.27	.43	2.5	.34				
15	.06	.11	.09	.08	.27	.46	.73	3.5				
16	.06	.11	.29	.08	.29	.77	.48	.66				
17	.03	.51	.09	.08	.29	.56	.56	.46				
18	.40	1.2	.08	.08	.29	.49	.56	.43				
19	.08	.06	.08	.08	.26	.52	.56	.43				
20	.04	.06	.09	.08	.52	.49	.43	.43				
21	.10	.06	.09	.09	.42	.37	.37	.40				
22	.12	.09	.09	.09	.38	.43	.40	.37				
23	.11	.09	.09	.12	2.4	.49	1.1	.37				
24	.09	3.4	.09	.14	.80	.52	.56	.37				
25	3.2	.20	.09	.14	.49	.46	.34	.37				
26	.11	.09	.09	.16	.40	.27	.37	.40				
27	.06	.08	.09	.18	.46	.37	.37	.40				
28	.06	.22	.11	.18	.61	.40	.52	.37				
29	.07	.07	.12	.18	---	.40	.56	.37				
30	.07	.11	.12	.16	---	.64	.52	.37				
31	.07	---	.12	.16	---	.40	---	.37				
TOTAL	6.25	7.80	3.04	3.29	19.71	15.27	18.60	19.63				
MEAN	.20	.26	.098	.11	.70	.49	.62	.63				
MAX	3.2	3.4	.29	.18	4.0	.77	2.5	3.5				
MIN	.03	.05	.07	.07	.14	.27	.27	.32				
CFSM	.36	.46	.18	.20	1.25	.88	1.11	1.13				
IN.	.41	.52	.20	.22	1.31	1.01	1.23	1.30				

CAL YR 1980 TOTAL 144.50 MEAN .39 MAX 3.6 MIN .03 CFSM .70 IN 9.58

01576772 SITE NO. 2 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

REMARKS.--Soil sample analyses were run on samples collected from the top 4 inches (10.2 cm) of soil at 8 sites in the drainage basin and composited for analysis. Revisions to previously published data are shown under "REVISED WATER-QUALITY DATA" and "REVISED PESTICIDE ANALYSES."

REVISED WATER-QUALITY DATA, OCTOBER 1979 TO APRIL 1980

DATE	TIME	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	AMETRYNE TOTAL	ATRATONE TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)
OCT 1979										
23...	1100	.600	.370	.370	2.9	1.0	.00	.00	.10	.00
NOV										
19...	1610	.190	.130	.110	2.0	.4	.00	.00	.10	.00
25...	1545	.590	.300	.020	6.8	26	.00	.00	.20	.00
26...	0730	.620	.340	.050	11	21	.00	.00	.10	.00
26...	1230	--	--	--	--	--	--	--	--	--
26...	1640	.420	.210	.210	8.1	.8	.00	.00	.10	.00
DEC										
13...	1100	.330	.410	.250	6.8	4.0	.00	.00	.10	.00
19...	1245	.270	.190	.180	1.5	.2	.00	.00	.10	.00
25...	0050	.560	.460	.460	6.6	25	.00	.00	.00	.00
JAN 1980										
11-12	--	.390	.360	.290	7.2	19	.00	.00	.00	.00
18-19	--	.300	.230	.230	5.3	7.2	.00	.00	.00	.00
22...	1015	1.10	.770	.770	2.1	2.6	.00	.00	.00	.00
FEB										
14...	1445	.220	.150	.150	3.1	1.2	.00	.00	.30	.00
22...	0445	.360	.170	.170	6.4	10	--	--	--	--
MAR										
05...	0245	--	.220	.220	8.4	9.0	.00	.00	.00	.00
08...	1950	.390	.600	.300	10	50	--	--	--	--
10-11	--	.490	.380	.380	9.2	35	--	--	--	--
13-14	--	.170	.120	.110	5.9	20	.00	.00	.00	.00
15...	1400	.270	.270	.270	5.2	.5	.00	.00	.00	.00
16...	1300	.740	1.30	.640	10	9.4	.00	.00	.00	.00
17...	1400	--	--	--	--	--	--	--	--	--
21...	0500	.330	.300	.200	6.6	15	.00	.00	.10	.00
21...	1205	--	--	--	--	--	--	--	--	--
21...	1206	--	--	--	--	--	--	--	--	--
24-25	--	--	.060	--	--	--	--	--	--	--
29...	0130	.390	.360	.360	3.7	5.2	.00	.00	.10	.00
31-31	--	.650	.620	.560	5.8	5.5	.00	.00	.10	.00
APR										
01-01	--	.650	.620	.560	5.8	5.5	.00	.00	.10	.00
04...	0310	.150	.140	.120	8.3	25	.00	.10	.10	.00
08...	0950	1.10	.950	.890	2.2	1.2	.00	.00	.10	.00
09...	0620	.160	.130	.120	5.5	16	.00	.00	.00	.00
09-10	--	.230	.180	.140	6.5	24	.00	.00	.00	.00
14...	1345	.090	.040	.040	3.1	.2	--	--	--	--
14...	1350	--	.090	--	4.8	22	--	--	--	--
14...	1410	.100	.100	.050	5.1	1.1	--	--	--	--
14...	1419	.130	.120	.070	4.8	39	--	--	--	--
14...	1435	.150	.080	.060	5.2	11	--	--	--	--
14...	1455	.120	.070	.050	4.9	3.9	--	--	--	--

NOTE: This table supercedes the table published in page 259, WDR PA-80-2.

01576772 SITE NO. 2 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

REVISED PESTICIDE ANALYSES, JUNE TO SEPTEMBER 1979

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
JUN 1979					
18...	1605	--	.40	.00	.0
AUG					
07...	1330	--	.19	.10	.0
29...	1445	--	.26	.00	.0
SEP					
05...	1558	--	.23	.00	.0
05...	1918	--	14	.00	.0
05...	2000	--	68	.00	.0
05...	2200	--	9.5	.00	.0
06...	0245	--	--	.00	.0
06...	0855	--	2.4	.00	.0

REVISED PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
OCT 1979					
23...	1100	--	.60	.00	.0
NOV					
19...	1610	--	.46	.00	.0
25...	1545	1.6	--	.00	.0
26...	0730	4.3	--	.00	.0
26...	1640	2.0	--	.00	.0
DEC					
13...	1100	1.7	--	.50	.0
19...	1245	--	.40	.00	.0
25...	0050	6.0	--	1.4	.0
JAN 1980					
11-12	--	3.4	--	.70	.0
18-19	--	2.3	--	.60	.0
22...	1015	--	.66	.00	.0
FEB					
14...	1445	--	.40	.00	.0
MAR					
05...	0245	1.2	--	.00	.0
13-14	--	3.6	--	.30	.0
15...	1400	1.5	--	.20	.0
16...	1300	1.7	--	.00	.0
21...	0500	3.9	--	.40	.0
29...	0130	2.0	--	.00	.0
31-31	--	3.5	--	.40	.0
APR					
01-01	--	3.5	--	.40	.0
04...	0310	4.4	--	.50	.0
08...	0950	--	.77	.10	.0
09...	0620	5.0	--	.20	.0
09-10	--	4.5	--	.00	.0
14...	2140	--	.88	.00	.0
27...	0515	2.2	--	.00	.0
27-28	--	6.0	--	.00	.0
28-29	--	3.8	--	.00	.0
30...	1100	E2.7	--	.00	.0
30-30	--	E8.1	--	.10	.0
MAY 1980					
01-01	--	E8.1	--	.10	.0
08...	1430	--	.56	.00	.0
12...	0640	2.6	--	.90	.0
12...	2000	1.8	--	.00	.0
13...	0230	4.9	--	.00	.0
18...	0530	1.8	--	4.8	.1
21...	0105	1.9	--	.00	.0
28...	1030	--	.40	.00	.0
31...	0855	3.2	--	.10	.0
31...	2010	3.7	--	.40	.0
JUN					
03...	1635	2.1	--	.40	.0
07-08	--	3.6	--	.10	.0
09...	2015	1.8	--	.10	.0
15-16	--	2.8	--	.10	.0
20...	0955	--	.25	.00	.0
28...	1940	3.3	--	.00	.1
29...	0400	1.1	--	.00	.0
29...	1740	1.3	--	.00	.0
29-30	--	11	--	.00	.0
JUL					
15...	1045	--	.18	.00	.0
16...	1620	9.6	--	.00	.0
21...	1835	6.2	--	2.6	.0
22...	1800	5.7	--	2.0	.0
AUG					
04...	1045	--	.18	.00	.0
10...	2220	1.3	--	.00	.0
15...	1200	.68	--	.00	.0
31...	0435	1.7	--	.00	.0
SEP					
02...	1100	--	.09	.00	.0
25...	0820	.81	--	.00	.0
26...	0035	8.3	--	.00	.0

BEST DOCUMENT AVAILABLE

01576772 SITE NO. 2 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT												
01...	1000	--	.16	601	.070	.070	5.4	5.4	.140	.140	1.40	.66
02...	1820	.91	--	455	.170	.150	2.9	2.8	.550	.530	3.30	1.9
03...	1905	1.4	--	275	--	--	--	--	--	--	--	--
18...	1550	2.1	--	175	.080	.060	1.1	1.1	.460	.410	4.50	.86
25...	0600	7.7	--	152	.050	.040	1.3	1.3	.380	.290	3.00	.61
25...	1150	--	13	105	--	--	--	--	--	--	--	--
25...	1250	--	2.7	141	--	--	--	--	--	--	--	--
25...	1345	--	1.2	181	--	--	--	--	--	--	--	--
25...	1830	1.2	--	251	--	--	--	--	--	--	--	--
NOV												
04...	0900	1.1	--	474	.090	.090	1.6	1.6	.340	.340	1.90	1.0
04...	1025	1.5	--	167	.070	.050	1.3	1.2	.460	.460	1.50	1.0
24...	0810	5.7	--	165	.070	.050	1.5	1.4	.410	.390	2.40	1.1
24...	1305	--	6.0	140	--	--	--	--	--	--	--	--
DEC												
02...	1340	--	.10	647	.170	.170	4.6	3.9	.150	.150	2.10	1.2
02...	2040	1.0	--	420	.150	.140	2.8	2.8	.360	.300	2.60	.85
09...	1740	.57	--	631	.120	.110	4.9	4.9	.150	.150	1.40	.45
16...	1030	.61	--	799	.080	.080	3.2	3.2	.420	.410	1.20	.86
17...	1025	--	.07	614	.050	.050	6.2	5.4	.050	.050	.34	.30
JAN												
14...	1025	--	.08	706	.050	.050	6.2	5.6	.090	.070	.37	.35
FEB												
01...	2230	--	1.2	604	--	--	--	--	--	--	--	--
01...	2300	--	2.0	746	--	--	--	--	--	--	--	--
01...	2330	--	2.2	746	--	--	--	--	--	--	--	--
02...	0130	--	.60	489	--	--	--	--	--	--	--	--
02...	0300	--	.46	480	--	--	--	--	--	--	--	--
02...	0530	--	.55	515	--	--	--	--	--	--	--	--
02...	0730	--	1.2	470	--	--	--	--	--	--	--	--
02...	0800	--	1.5	446	--	--	--	--	--	--	--	--
02...	0900	--	24	279	--	--	--	--	--	--	--	--
02...	0930	--	17	301	--	--	--	--	--	--	--	--
02...	1000	--	12	299	--	--	--	--	--	--	--	--
08...	1340	--	1.6	574	--	--	--	--	--	--	--	--
08...	1440	--	4.7	369	--	--	--	--	--	--	--	--
08...	1540	--	3.5	244	--	--	--	--	--	--	--	--
08...	1640	--	2.0	242	--	--	--	--	--	--	--	--
08...	1810	--	1.5	307	--	--	--	--	--	--	--	--
08...	2010	--	.88	350	--	--	--	--	--	--	--	--
10-11	--	2.0	--	539	.350	.340	3.1	3.1	4.30	4.20	10.0	7.8
11...	0425	--	1.5	529	--	--	--	--	--	--	--	--
11...	0440	--	1.4	538	--	--	--	--	--	--	--	--
11...	0700	6.8	--	377	.400	.360	3.4	3.3	3.10	3.10	16.0	7.8
11...	0915	--	10	377	--	--	--	--	--	--	--	--
11...	0930	--	10	350	--	--	--	--	--	--	--	--
11...	1045	--	7.9	361	--	--	--	--	--	--	--	--
11...	1100	--	7.9	389	--	--	--	--	--	--	--	--
11...	1915	--	2.5	497	--	--	--	--	--	--	--	--
11...	1945	--	2.8	450	--	--	--	--	--	--	--	--
11...	2115	--	1.9	418	--	--	--	--	--	--	--	--
23...	0605	1.8	--	--	--	--	--	--	--	--	--	--
23...	1450	--	4.9	296	.130	.060	1.3	1.3	.620	.470	3.60	.81
23...	1610	--	1.7	341	.070	.060	2.0	1.9	.450	.370	1.40	1.0
23...	1725	--	16	622	.460	.260	2.5	2.3	2.90	2.00	5.60	E2.8
23...	1730	--	16	424	--	--	--	--	--	--	--	--
23...	1735	--	16	359	.160	.080	1.4	1.3	1.70	1.60	10.0	2.4
23...	1830	--	6.9	249	.110	.050	1.5	1.4	.560	.430	4.10	1.1
23...	2045	--	3.2	316	.070	.070	2.8	2.4	.370	.330	1.80	.99
24...	0825	--	.80	506	.090	.090	6.8	6.6	.330	.290	1.30	.67
25...	1400	--	.37	666	.100	.090	5.5	5.4	.210	.120	.87	.50
MAR												
17...	1120	--	.56	632	.120	.110	5.4	5.2	.090	.080	.83	.36
APR												
01...	1630	--	6.0	--	--	--	--	--	--	--	--	--
08...	0945	--	.43	695	.080	.060	3.9	3.9	.150	.110	2.30	2.3
23...	0100	--	1.0	363	--	--	--	--	--	--	--	--
23...	0200	--	.73	617	--	--	--	--	--	--	--	--
23...	1855	4.3	--	186	.080	.050	1.3	1.2	.510	.250	2.90	1.1
MAY												
01...	1730	--	2.0	594	--	--	--	--	--	--	--	--
01...	1830	--	4.0	261	--	--	--	--	--	--	--	--
01...	1900	--	4.4	213	--	--	--	--	--	--	--	--
01...	2000	--	6.9	178	--	--	--	--	--	--	--	--
01...	2030	--	6.9	162	--	--	--	--	--	--	--	--
01...	2100	--	7.2	158	--	--	--	--	--	--	--	--
01...	2130	--	7.2	164	--	--	--	--	--	--	--	--
27...	1010	--	.40	556	.230	.230	2.9	2.9	.230	.230	2.00	1.4

E = Estimated value.

BEST DOCUMENT AVAILABLE

01576772 SITE NO. 2 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	AMETRYNE TOTAL	ATRATONE TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)
OCT												
01...	6.8	6.1	.630	.480	.470	.410	3.8	2.0	<.10	<.10	.20	<.10
02...	6.2	4.7	1.10	1.10	1.00	1.00	16	6.7	<.10	<.10	.20	<.10
03...	--	--	--	--	--	--	--	--	--	--	--	--
18...	5.6	2.0	2.30	.410	.560	.390	10	7.2	<.10	<.10	.10	<.10
25...	4.3	1.9	1.50	.650	.810	.620	7.9	7.8	<.10	<.10	<.10	<.10
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
04...	3.5	2.6	2.00	1.50	1.50	1.30	16	6.0	--	--	--	--
04...	2.8	2.2	1.20	.660	.710	.600	16	4.8	<.10	<.10	.10	<.10
24...	3.9	2.5	1.70	.630	.690	.560	5.6	10	<.10	<.10	.20	<.10
24...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
02...	6.7	5.1	1.00	.780	.730	.670	4.2	2.8	<.10	<.10	.10	<.10
02...	5.4	3.7	2.60	2.00	1.80	1.60	16	6.9	<.10	<.10	.20	<.10
09...	6.3	5.4	1.40	1.00	1.00	.940	.3	4.1	<.10	<.10	.20	<.10
16...	4.4	4.1	.980	.760	.710	.670	8.2	4.7	<.10	<.10	.10	<.10
17...	6.5	5.7	.580	.550	.520	.510	2.8	.5	<.10	<.10	.10	<.10
JAN												
14...	6.6	6.0	.840	.830	.780	.770	1.3	.5	<.10	<.10	.20	<.10
FEB												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
10-11	13	11	3.40	2.00	2.50	2.00	38	7.0	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	19	11	3.30	1.90	1.90	1.90	29	>8.0	<.10	<.10	.90	<.10
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	4.9	2.1	1.60	.260	.500	.240	6.3	<16	<.10	<.10	.10	<.10
23...	3.4	2.9	.640	.260	.320	.240	4.9	2.8	--	--	--	--
23...	8.1	E5.1	30.0	2.30	5.00	2.30	24	20	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	11	3.7	7.90	.620	.920	.540	9.5	<20	--	--	--	--
23...	5.6	2.5	1.60	.330	.550	.300	6.3	--	<.10	<.10	<.10	<.10
23...	4.6	3.4	.890	.480	.480	.370	6.5	3.8	<.10	<.10	<.10	<.10
24...	8.1	7.3	.380	.240	.250	.220	3.8	1.0	<.10	<.10	.10	<.10
25...	6.4	5.9	.860	.740	.710	.660	2.5	--	<.10	<.10	.10	<.10
MAR												
17...	6.2	5.6	.590	.350	.380	.330	1.9	3.6	<.10	<.10	<.10	<.10
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
08...	6.2	6.2	.620	.380	.480	.300	10	6.6	<.10	<.10	.10	<.10
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	4.2	2.3	1.40	.270	.410	.230	6.8	10	<.10	<.10	<.10	<.10
MAY												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
27...	4.9	4.3	.760	.370	.440	.310	8.4	3.6	<.10	<.10	.20	<.10

E = Estimated values.

BEST DOCUMENT AVAILABLE

01576772 SITE NO. 2 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	CYPRAZINE TOTAL (UG/L)	PROMETONE TOTAL (UG/L)	PROMETRYNE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETONE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)	ALACHLOR (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
01...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	20	.01	100
02...	<.10	.3	<.1	<.10	<.10	<.10	<.1	<.1	163	.40	90
03...	--	--	--	--	--	--	--	--	333	1.3	96
18...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	651	3.7	90
25...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	540	11	94
25...	--	--	--	--	--	--	--	--	311	11	96
25...	--	--	--	--	--	--	--	--	91	.66	94
25...	--	--	--	--	--	--	--	--	53	.17	92
25...	--	--	--	--	--	--	--	--	57	.18	91
NOV											
04...	--	--	--	--	--	--	--	--	182	.54	96
04...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	156	.63	97
24...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	584	9.0	88
24...	--	--	--	--	--	--	--	--	198	3.2	97
DEC											
02...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	23	.01	81
02...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	219	.59	89
09...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	70	.11	94
16...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	82	.14	95
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	10	.00	68
JAN											
14...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	4	.00	87
FEB											
01...	--	--	--	--	--	--	--	--	460	1.5	91
01...	--	--	--	--	--	--	--	--	895	4.8	51
01...	--	--	--	--	--	--	--	--	1040	6.2	61
02...	--	--	--	--	--	--	--	--	155	.25	88
02...	--	--	--	--	--	--	--	--	105	.13	95
02...	--	--	--	--	--	--	--	--	156	.23	97
02...	--	--	--	--	--	--	--	--	198	.64	98
02...	--	--	--	--	--	--	--	--	672	2.7	97
02...	--	--	--	--	--	--	--	--	3800	247	76
02...	--	--	--	--	--	--	--	--	2510	115	71
02...	--	--	--	--	--	--	--	--	1490	48	85
08...	--	--	--	--	--	--	--	--	983	4.2	67
08...	--	--	--	--	--	--	--	--	823	10	91
08...	--	--	--	--	--	--	--	--	671	6.3	94
08...	--	--	--	--	--	--	--	--	280	1.5	95
08...	--	--	--	--	--	--	--	--	134	.54	96
08...	--	--	--	--	--	--	--	--	62	.15	88
10-11	--	--	--	--	--	--	--	--	428	2.3	95
11...	--	--	--	--	--	--	--	--	174	.70	77
11...	--	--	--	--	--	--	--	--	150	.57	91
11...	<.10	<.1	<.1	<.10	3.3	<.10	<.1	<.1	1330	24	94
11...	--	--	--	--	--	--	--	--	1140	31	97
11...	--	--	--	--	--	--	--	--	1640	45	76
11...	--	--	--	--	--	--	--	--	1340	29	69
11...	--	--	--	--	--	--	--	--	1580	34	86
11...	--	--	--	--	--	--	--	--	395	2.7	84
11...	--	--	--	--	--	--	--	--	351	2.7	88
11...	--	--	--	--	--	--	--	--	241	1.2	80
23...	--	--	--	--	--	--	--	--	--	--	--
23...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	1100	15	99
23...	--	--	--	--	--	--	--	--	214	.98	100
23...	--	--	--	--	--	--	--	--	6310	273	93
23...	--	--	--	--	--	--	--	--	5370	232	78
23...	--	--	--	--	--	--	--	--	8910	387	92
23...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	1030	19	98
23...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	183	1.6	100
24...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	104	.22	46
25...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	12	.01	100
MAR											
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	40	.06	97
APR											
01...	--	--	--	--	--	--	--	--	5910	96	--
08...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	127	.15	100
23...	--	--	--	--	--	--	--	--	122	.33	46
23...	--	--	--	--	--	--	--	--	446	.88	74
23...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	854	9.9	86
MAY											
01...	--	--	--	--	--	--	--	--	1130	6.1	82
01...	--	--	--	--	--	--	--	--	891	9.6	80
01...	--	--	--	--	--	--	--	--	647	7.7	78
01...	--	--	--	--	--	--	--	--	1060	20	81
01...	--	--	--	--	--	--	--	--	933	17	67
01...	--	--	--	--	--	--	--	--	833	16	66
01...	--	--	--	--	--	--	--	--	622	12	74
27...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	57	.06	98

01576772 SITE NO. 2 ON PEQUEA CREEK TRIBUTARY AT STRASBURG, PA--Continued

CHEMISTRY AND PARTICLE-SIZE DISTRIBUTION OF SOIL, OCTOBER 1980 TO MAY 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	ATRAZINE TOTAL IN SOIL (MG/KG)	PROMETONE TOTAL IN SOIL (MG/KG)	PROMETRYNE TOTAL IN SOIL (MG/KG)	PROPAZINE TOTAL IN SOIL (MG/KG)
DEC 01...	1415	35	4.5	9900	9940	920	35	1.6	<.04	<.04	<.04	<.04

DATE	SIMAZINE TOTAL IN SOIL (MG/KG)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
DEC 01...	<.04	19	29	44	64	79	88	93	97	98	100	100

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA

LOCATION.--Lat 39°58'16", long 76°16'42", Lancaster County, Hydrologic Unit 02050306, on left bank at end of culvert pipe, 100 ft (30 m) upstream from State Route 272 at Willow Street, and 0.34 mi (0.55 km) upstream from mouth.

DRAINAGE AREA.--0.23 mi^2 (0.60 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 380 ft (116 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61.5 ft^3/s (1.74 m^3/s) Sept. 22, 1979, gage height, 2.48 ft (0.756 m); no flow Sept. 22-24, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1980 to May 1981, 26 ft^3/s (0.74 m^3/s), Feb. 2, gage height 1.93 ft (0.588 m), no peaks above base of 45 ft^3/s (1.27 m^3/s); minimum 0.004 ft^3/s (0.001 m^3/s) Oct. 17-20, Nov. 8, 9, 13-17, gage height 0.48 ft (0.146 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.02	.02	.05	.08	.46	.77				
2	.19	.01	.09	.02	1.3	.07	.06	.17				
3	.12	.01	.02	.02	.02	.05	.05	.07				
4	.01	.11	.01	.02	.02	.05	.04	.07				
5	.01	.01	.01	.02	.01	.17	.79	.06				
6	.01	.01	.01	.02	.01	.13	.11	.07				
7	.01	.01	.02	.02	.01	.08	.07	.06				
8	.01	.02	.02	.02	.19	.10	.06	.05				
9	.01	.01	.04	.02	.02	.08	.12	.05				
10	.01	.01	.02	.03	.09	.07	.06	.13				
11	.02	.01	.01	.03	1.2	.08	.19	.54				
12	.01	.01	.01	.02	.04	.06	.16	.11				
13	.01	.00	.02	.01	.03	.06	.09	.07				
14	.01	.00	.02	.00	.03	.05	1.1	.06				
15	.01	.00	.02	.01	.03	.05	.13	.97				
16	.01	.00	.11	.03	.03	.14	.10	.11				
17	.00	.56	.01	.01	.03	.06	.09	.07				
18	.01	1.3	.01	.01	.03	.06	.08	.06				
19	.00	.03	.01	.01	.03	.06	.07	.08				
20	.00	.01	.01	.01	.60	.05	.07	.09				
21	.01	.01	.01	.01	.12	.05	.06	.07				
22	.01	.01	.01	.01	.07	.04	.06	.07				
23	.01	.01	.01	.01	1.3	.04	.47	.09				
24	.01	2.0	.01	.01	.14	.06	.01	.09				
25	1.7	.07	.01	.01	.08	.05	.07	.06				
26	.02	.05	.04	.01	.08	.04	.07	.06				
27	.01	.08	.01	.01	.07	.04	.06	.06				
28	.01	.15	.01	.01	.11	.04	.06	.06				
29	.01	.02	.02	.01	---	.04	.06	.05				
30	.01	.02	.02	.01	---	.43	.06	.04				
31	.01	---	.02	.01	---	.05	---	.10				
TOTAL	2.28	4.55	.66	.46	5.74	2.43	4.88	4.41				
MEAN	.074	.15	.021	.015	.21	.078	.16	.14				
MAX	1.7	2.0	.11	.03	1.3	.43	1.1	.97				
MIN	.00	.00	.01	.00	.01	.04	.01	.04				
CFSM	.32	.65	.09	.07	.91	.34	.70	.61				
IN.	.37	.73	.11	.07	.92	.39	.79	.71				

CAL YR 1980 TOTAL 52.64 MEAN .14 MAX 2.2 MIN .00 CFSM .61 IN 8.48

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

REMARKS.--Soil sample analyses were run on samples collected from the top 4 inches (10.2 cm) of soil at 8 sites in the drainage basin and composited for analysis. Revisions to previously published pesticide data are shown under "REVISED PESTICIDE ANALYSES."

REVISED PESTICIDE ANALYSES, JUNE TO SEPTEMBER 1979

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
JUN 1979					
18...	1315	--	.05	.00	.0
AUG					
07...	1130	--	.05	.00	.0
29...	1620	--	.03	.10	.0
SEP					
05...	1620	--	.02	.00	.0
05...	1700	--	.67	.00	.0
05...	1835	--	7.0	.00	.0
05...	2020	--	31	.00	.0
05...	2248	--	17	.00	.0
05...	2330	--	38	.00	.0
06...	0240	--	23	.00	.0
06...	0655	--	1.0	.30	.0

REVISED PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
OCT 1979					
23...	1210	--	.08	.00	.0
NOV					
19...	1420	--	.07	.00	.0
26...	0630	4.7	--	.00	.0
26...	1630	1.3	--	.00	.0
DEC					
13...	0430	.22	--	.00	.0
13...	1010	.89	--	.00	.0
19...	1200	--	.04	.00	.0
25...	0040	4.0	--	.00	.0
JAN 1980					
11-12	--	1.2	--	.00	.0
18-19	--	1.1	--	.00	.0
FEB					
14...	1315	--	.05	.00	.0
MAR					
05...	0210	.49	--	.00	.0
10-11	--	.91	--	.00	.0
17...	1300	1.2	--	.00	.0
21...	0400	2.2	--	.00	.0
28-29	--	.84	--	.10	.0
31...	0340	2.3	--	.10	.0
APR					
04...	0225	3.5	--	.00	.0
08...	1355	--	.10	.00	.0
27-28	--	2.9	--	.00	.0
28...	0655	.66	--	.20	.0
30...	0800	2.2	--	.00	.0
30-30	--	4.3	--	.00	.0
MAY					
01-01	--	4.3	--	.00	.0
08...	1255	--	.11	.10	.0
12...	0615	1.2	--	.10	.0
12...	1915	.89	--	1.8	.0
13...	0200	2.2	--	.10	.0
18...	0430	.80	--	.10	.0
21...	0900	2.5	--	.50	.0
28...	1750	--	.07	.00	.0
31...	0745	.83	--	.00	.0
JUN 1980					
07...	2050	1.4	--	.10	.0
08...	0735	1.2	--	.00	.0
09...	1940	.86	--	.10	.0
15...	1600	3.3	--	1.6	1.6
15-16	--	1.7	--	.00	.0
20...	1100	--	.08	.00	.0
28...	1935	3.9	--	.80	.0
29...	0350	.35	--	.40	.0
29...	1655	2.1	--	.00	.0
JUL					
15...	1240	--	.06	.00	.0
21...	1825	3.8	--	3.2	.0
22...	1800	.82	--	2.6	.0
31-31	--	1.7	--	.00	.0
AUG					
01-01	--	1.7	--	.00	.0
03...	0015	3.1	--	2.8	.0
04...	1135	--	.08	2.3	.0
10...	2143	1.2	--	.00	.0
11...	1920	--	.07	.10	.0
11...	2022	16	--	.00	.0
11...	2145	--	--	.00	.0
12...	1410	3.8	--	.00	.0
SEP					
02...	1210	--	<.01	.10	.0
25...	0600	.28	--	.00	.0
25-26	--	3.4	--	.00	.0

BEST DOCUMENT AVAILABLE

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT												
01...	1035	--	.01	414	.020	.010	1.9	1.7	.050	.040	.37	.20
02...	1705	.94	--	152	.060	.060	1.6	1.6	.610	.610	2.30	1.3
02-03	--	.24	--	157	.070	.050	1.7	1.6	.310	.310	.91	.73
03...	1900	.75	--	135	--	--	--	--	--	--	--	--
11...	0935	.15	--	327	--	--	--	--	--	--	--	--
18...	1520	.81	--	151	.050	.040	.97	.95	.440	.410	1.90	.89
25...	0505	3.6	--	113	.020	.010	.41	.40	.100	.060	.39	.24
25...	1050	--	4.3	80	--	--	--	--	--	--	--	--
25...	1051	--	4.3	79	--	--	--	--	--	--	--	--
NOV												
04...	1015	1.0	--	117	.160	.040	2.8	.91	.560	.410	2.40	1.0
08...	0540	.18	--	288	.110	.110	1.6	1.6	.520	.490	3.30	1.1
17-18	--	1.5	--	234	.050	.040	.90	.89	.290	.220	1.40	.88
24...	0700	3.4	--	95	.030	.020	1.6	1.6	.110	.070	.42	.25
24...	1347	--	3.0	98	--	--	--	--	--	--	--	--
24...	1355	--	3.0	99	--	--	--	--	--	--	--	--
27-28	--	.34	--	181	.050	.050	.87	.78	.180	.180	.60	.51
DEC												
02...	1245	--	.02	452	.030	.030	2.5	2.5	.020	.020	.14	.14
02...	1925	.74	--	247	.070	.040	1.3	.78	.490	.270	1.70	.86
09...	1632	.24	--	330	--	--	--	--	--	--	--	--
16...	0855	.22	--	1210	.110	.090	1.4	1.4	.420	.390	1.50	.69
17...	1505	--	.01	576	.020	.020	2.2	2.0	.020	<.010	.23	.08
FEB												
08...	1225	--	.17	549	--	--	--	--	--	--	--	--
08...	1310	--	.61	1300	--	--	--	--	--	--	--	--
08...	1335	--	1.4	667	--	--	--	--	--	--	--	--
08...	1355	--	1.2	457	--	--	--	--	--	--	--	--
08...	1425	--	1.8	352	--	--	--	--	--	--	--	--
08...	1640	--	.45	336	--	--	--	--	--	--	--	--
08...	2000	--	.11	614	--	--	--	--	--	--	--	--
08...	2140	--	.07	653	--	--	--	--	--	--	--	--
10-11	--	.60	--	590	.070	.050	1.2	1.1	.590	.520	2.30	1.6
11...	0645	2.2	--	364	.050	.040	1.2	1.1	.230	.230	1.70	1.1
11...	1000	--	2.5	342	--	--	--	--	--	--	--	--
11...	1001	--	2.8	345	--	--	--	--	--	--	--	--
11...	1810	4.0	--	670	.080	.040	1.4	1.2	.230	.230	1.40	.91
20...	0045	.90	--	540	.060	.050	1.1	1.1	.200	.170	1.20	1.1
20...	1852	.19	--	576	.130	.100	1.6	1.6	.530	.460	2.10	1.1
20-21	--	.23	--	481	.070	.060	1.5	1.5	.360	.360	1.30	.88
21...	1510	.38	--	457	.080	<.010	1.1	.99	.160	.120	1.20	.71
23...	0015	.26	--	479	.060	--	1.2	--	.240	--	.84	--

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	AMETRYNE TOTAL	ATRATONE TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)
OCT												
01...	2.3	1.9	.030	.020	.020	.010	2.3	.4	<.10	<.10	<.10	<.10
02...	3.9	2.9	.340	.170	.140	.140	20	75	<.10	<.10	.20	<.10
02-03	2.6	2.3	.150	.090	.100	.090	17	1.9	<.10	<.10	<.10	<.10
03...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
18...	2.9	1.8	.420	.120	.090	.060	14	>10	<.10	<.10	.20	.20
25...	.80	.64	.230	.130	.100	.070	11	2.9	<.10	<.10	.10	<.10
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
04...	5.2	1.9	2.60	.160	1.90	.140	20	3.7	<.10	<.10	<.10	<.10
08...	4.9	2.7	.320	.090	.090	.060	25	--	<.10	<.10	.40	<.10
17-18	2.3	1.8	.750	.390	.370	.330	6.3	--	<.10	<.10	<.10	<.10
24...	2.0	1.9	.220	.110	.120	.100	5.4	3.2	<.10	<.10	<.10	<.10
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
27-28	1.5	1.3	.080	.050	.050	.040	7.9	1.3	<.10	<.10	<.10	<.10
DEC												
02...	2.6	2.6	.050	.020	.020	.020	3.5	.8	<.10	<.10	<.10	<.10
02...	3.0	1.6	.270	.090	.110	.050	12	5.8	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
16...	2.9	2.1	.230	.060	.060	.030	14	--	<.10	<.10	.30	<.10
17...	2.4	2.1	.030	.010	<.010	<.010	4.5	.5	<.10	<.10	<.10	<.10
FEB												
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
10-11	3.5	2.7	.600	.180	.200	.140	18	6.0	<.10	<.10	<.10	<.10
11...	2.9	2.2	.360	.200	.170	.100	13	3.6	<.10	<.10	.50	<.10
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	2.8	2.1	.270	.120	.100	.080	11	6.7	<.10	<.10	.20	<.10
20...	2.3	2.2	.250	.070	.090	.060	9.9	.1	<.10	<.10	<.10	<.10
20...	3.7	2.7	.320	.060	.150	.040	17	1.4	--	--	--	--
20-21	2.8	2.4	.220	.060	.100	.050	8.4	--	<.10	<.10	<.10	<.10
21...	2.3	1.7	.250	.030	.060	<.010	6.5	4.1	<.10	<.10	<.10	<.10
23...	2.0	--	.140	--	.020	--	3.8	1.7	--	--	--	--

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	CYPRA- ZINE TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TONE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	ALA- CHLOR (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
01...	<.10	.5	<.1	<.10	<.10	<.10	<.1	<.1	61	.00	26
02...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	99	.25	87
02-03	<.10	.2	<.1	<.10	.40	<.10	<.1	<.1	17	.01	81
03...	--	--	--	--	--	--	--	--	89	.18	95
11...	--	--	--	--	--	--	--	--	77	.03	80
18...	.20	.1	.1	<.10	<.10	<.10	<.1	.2	215	.47	90
25...	<.10	.1	<.1	<.10	<.10	<.10	<.1	.1	70	.68	81
25...	--	--	--	--	--	--	--	--	29	.34	95
25...	--	--	--	--	--	--	--	--	22	.26	100
NOV											
04...	<.10	.1	<.1	<.10	<.10	<.10	<.1	.1	51	.14	100
08...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	73	.04	81
17-18	<.10	<.1	<.1	<.10	<.10	<.10	<.1	--	46	.19	85
24...	<.10	.1	<.1	<.10	<.10	<.10	<.1	.1	62	.57	90
24...	--	--	--	--	--	--	--	--	23	.19	100
24...	--	--	--	--	--	--	--	--	26	.21	97
27-28	<.10	.1	<.1	<.10	<.10	<.10	<.1	.1	15	.01	74
DEC											
02...	<.10	.2	<.1	<.10	<.10	<.10	<.1	<.1	49	.00	21
02...	--	--	--	--	--	--	--	--	70	.14	68
09...	--	--	--	--	--	--	--	--	39	.03	63
16...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	64	.04	82
17...	<.10	.3	<.1	<.10	<.10	<.10	<.1	<.1	36	.00	57
FEB											
08...	--	--	--	--	--	--	--	--	85	.04	53
08...	--	--	--	--	--	--	--	--	81	.13	80
08...	--	--	--	--	--	--	--	--	126	.48	97
08...	--	--	--	--	--	--	--	--	75	.24	94
08...	--	--	--	--	--	--	--	--	86	.42	95
08...	--	--	--	--	--	--	--	--	36	.04	96
08...	--	--	--	--	--	--	--	--	19	.01	97
08...	--	--	--	--	--	--	--	--	18	.00	83
10-11	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	68	.11	91
11...	<.10	.2	<.1	<.10	<.10	<.10	<.1	<.1	126	.75	96
11...	--	--	--	--	--	--	--	--	74	.50	93
11...	--	--	--	--	--	--	--	--	81	.61	91
11...	<.10	.2	<.1	<.10	<.10	<.10	<.1	<.1	167	1.8	97
20...	<.10	.2	<.1	<.10	<.10	<.10	<.1	<.1	144	.35	96
20...	--	--	--	--	--	--	--	--	190	.10	96
20-21	<.10	.2	<.1	<.10	<.10	<.10	<.1	<.1	104	.06	97
21...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	127	.13	96
23...	--	--	--	--	--	--	--	--	48	.03	96

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
FEB												
23...	0420	1.5	--	309	.030	.030	.79	.79	.130	.100	.87	.46
25...	1115	--	.08	496	.060	.030	3.7	3.6	.050	<.010	.77	.31
28...	1755	--	.40	896	--	--	--	--	--	--	--	--
28...	1825	--	.74	791	--	--	--	--	--	--	--	--
28...	1855	--	.55	583	--	--	--	--	--	--	--	--
28...	1940	--	.19	574	--	--	--	--	--	--	--	--
MAR												
05...	1240	--	.32	1510	--	--	--	--	--	--	--	--
05...	1450	--	.36	1320	--	--	--	--	--	--	--	--
05...	1705	--	.25	956	--	--	--	--	--	--	--	--
06...	1445	--	.32	831	--	--	--	--	--	--	--	--
06...	1525	--	.25	817	--	--	--	--	--	--	--	--
16...	0755	--	.19	707	--	--	--	--	--	--	--	--
16...	0910	--	.50	503	--	--	--	--	--	--	--	--
16...	1010	--	.32	401	--	--	--	--	--	--	--	--
17...	1215	--	.06	503	.020	.020	3.3	3.2	.030	.030	.58	.44
24...	2100	.34	--	513	.030	--	2.4	--	.060	--	1.00	--
30...	1110	.92	--	491	.090	.070	1.2	1.2	.320	.300	2.70	1.1
APR												
05...	1140	1.9	--	242	.030	.020	.55	.54	.300	.280	1.30	.90
08...	1022	--	.06	469	.040	.030	3.2	3.1	.080	.080	.65	.65
09...	1130	.69	--	714	--	--	--	--	--	--	--	--
11...	1015	.66	--	436	.050	.040	.97	.96	.350	.350	1.80	1.1
12...	0710	.38	--	285	.030	.030	1.0	.99	.300	.300	.73	.36
14...	0525	2.6	--	155	.030	.020	.50	.48	.170	.170	.56	.28
14...	1615	.76	--	293	.050	.050	1.6	1.6	.180	.180	.98	.67
23...	0045	--	.15	338	--	--	--	--	--	--	--	--
23...	1835	1.2	--	278	.050	.040	1.3	1.3	.430	.280	2.00	.81
23...	2340	--	.28	410	--	--	--	--	--	--	--	--
24...	0015	--	.22	292	--	--	--	--	--	--	--	--
24...	1655	--	1.5	531	--	--	--	--	--	--	--	--
24...	1710	--	.67	200	--	--	--	--	--	--	--	--
24...	1725	--	.32	192	--	--	--	--	--	--	--	--
24...	1755	--	.15	275	--	--	--	--	--	--	--	--
MAY												
01...	1545	--	1.6	404	--	--	--	--	--	--	--	--
01...	1600	--	2.5	226	--	--	--	--	--	--	--	--
01...	1630	--	.74	184	--	--	--	--	--	--	--	--
01...	1715	--	1.8	154	--	--	--	--	--	--	--	--
01...	1800	--	2.9	135	--	--	--	--	--	--	--	--
01...	1830	--	2.2	129	--	--	--	--	--	--	--	--
01...	1930	--	4.0	134	--	--	--	--	--	--	--	--
01...	2015	--	2.6	125	--	--	--	--	--	--	--	--
01...	2045	--	3.3	132	--	--	--	--	--	--	--	--
01...	2230	--	1.2	169	--	--	--	--	--	--	--	--
01...	2315	--	2.6	153	--	--	--	--	--	--	--	--
02...	0030	--	.89	223	--	--	--	--	--	--	--	--
02...	0200	--	.32	348	--	--	--	--	--	--	--	--
02...	0430	--	.15	401	--	--	--	--	--	--	--	--
06...	1810	--	.22	447	--	--	--	--	--	--	--	--
06...	1825	--	.22	565	--	--	--	--	--	--	--	--
06...	1845	--	.16	442	--	--	--	--	--	--	--	--
06...	1900	--	.15	416	--	--	--	--	--	--	--	--
10-11	--	.53	--	193	.060	.060	.83	.81	.200	.200	1.50	.77
11...	0640	.88	--	179	.030	.030	.65	.65	.300	.300	1.40	.49
11...	1450	.95	--	192	.040	.030	.58	.57	.130	.130	.91	.58
11...	1500	--	3.4	134	--	--	--	--	--	--	--	--
15-16	--	2.2	--	177	.040	.030	.80	.78	.340	.330	2.40	1.1
27...	1115	--	.05	434	.010	.010	3.1	3.1	.060	.060	.85	.30

BEST DOCUMENT AVAILABLE

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA--Continued

WATER QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	AMETRYNE TOTAL	ATRATONE TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)
FEB												
23...	1.7	1.3	.500	.120	.090	.060	6.5	6.0	<.10	<.10	<.10	<.10
25...	4.5	3.9	.040	.020	.020	<.010	9.3	.4	<.10	<.10	<.10	<.10
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	3.9	3.6	.030	.020	<.010	<.010	8.7	.2	<.10	<.10	<.10	<.10
24...	3.4	--	.050	--	<.010	--	4.5	2.2	--	--	--	--
30...	3.9	2.3	.430	.080	.130	.080	15	>11	<.10	<.10	.20	<.10
APR												
05...	1.8	1.4	.190	.060	.080	.060	6.7	4.8	<.10	<.10	<.10	<.10
08...	3.8	3.8	.050	.050	.050	.050	12	.4	<.10	<.10	<.10	<.10
09...	--	--	--	--	--	--	--	--	--	--	--	--
11...	2.8	2.1	.230	.070	.080	.060	7.5	5.5	<.10	<.10	.20	<.10
12...	1.7	1.4	.080	.010	.010	.010	8.9	1.7	--	--	--	--
14...	1.1	.76	.220	.050	.070	.050	9.5	4.7	<.10	<.10	<.10	<.10
14...	2.6	2.3	.130	.040	.040	.020	6.3	2.7	<.10	<.10	1.2	<.10
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	3 3	2.1	.180	.070	.120	.060	7.8	5.8	<.10	<.10	<.10	<.10
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
10-11	2.3	1.6	.220	.030	.040	.010	8.3	>5.0	<.10	<.10	2.1	<.10
11...	2.0	1.1	.200	.040	.020	.020	5.4	--	<.10	<.10	1.4	<.10
11...	1.5	1.2	.170	.010	.040	.010	11	3.0	<.10	<.10	1.0	<.10
11...	--	--	--	--	--	--	--	--	--	--	--	--
15-16	3.2	1.9	.350	.090	.090	.080	6.4	>9.0	--	--	--	--
27...	3.9	3.4	.050	.030	.010	.010	1.5	.4	<.10	<.10	<.10	<.10

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	CYPRA-ZINE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TONE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	ALA-CHLOR (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB											
23...	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	266	1.1	92
25...	<.10	.5	<.1	<.10	<.10	<.10	<.1	<.1	104	.02	19
28...	--	--	--	--	--	--	--	--	49	.05	84
28...	--	--	--	--	--	--	--	--	82	.16	87
28...	--	--	--	--	--	--	--	--	40	.06	89
28...	--	--	--	--	--	--	--	--	24	.01	86
MAR											
05...	--	--	--	--	--	--	--	--	137	.12	79
05...	--	--	--	--	--	--	--	--	72	.07	92
05...	--	--	--	--	--	--	--	--	36	.02	77
06...	--	--	--	--	--	--	--	--	52	.04	91
06...	--	--	--	--	--	--	--	--	40	.03	88
16...	--	--	--	--	--	--	--	--	33	.02	54
16...	--	--	--	--	--	--	--	--	87	.12	53
16...	--	--	--	--	--	--	--	--	31	.03	960
17...	<.10	.4	<.1	<.10	<.10	<.10	<.1	.1	98	.02	3
24...	--	--	--	--	--	--	--	--	45	.04	79
30...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	173	.43	98
APR											
05...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	90	.46	96
08...	<.10	.4	<.1	<.10	<.10	<.10	<.1	<.1	129	.02	0
09...	--	--	--	--	--	--	--	--	68	.13	83
11...	<.10	.1	<.1	<.10	.12	<.10	<.1	<.1	90	.16	100
12...	--	--	--	--	--	--	--	--	5	.01	89
14...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	125	.88	87
14...	<.10	<.1	<.1	<.10	1.0	<.10	<.1	<.1	50	.10	100
23...	--	--	--	--	--	--	--	--	13	.01	68
23...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	109	.35	95
23...	--	--	--	--	--	--	--	--	10	.01	94
24...	--	--	--	--	--	--	--	--	13	.01	93
24...	--	--	--	--	--	--	--	--	85	.34	94
24...	--	--	--	--	--	--	--	--	143	.26	98
24...	--	--	--	--	--	--	--	--	57	.05	97
24...	--	--	--	--	--	--	--	--	41	.02	93
MAY											
01...	--	--	--	--	--	--	--	--	226	.98	97
01...	--	--	--	--	--	--	--	--	183	1.2	91
01...	--	--	--	--	--	--	--	--	51	.10	98
01...	--	--	--	--	--	--	--	--	84	.41	96
01...	--	--	--	--	--	--	--	--	71	.56	98
01...	--	--	--	--	--	--	--	--	69	.41	95
01...	--	--	--	--	--	--	--	--	66	.71	93
01...	--	--	--	--	--	--	--	--	40	.28	98
01...	--	--	--	--	--	--	--	--	58	.52	100
01...	--	--	--	--	--	--	--	--	15	.05	100
01...	--	--	--	--	--	--	--	--	39	.27	83
02...	--	--	--	--	--	--	--	--	11	.03	100
02...	--	--	--	--	--	--	--	--	4	.00	100
02...	--	--	--	--	--	--	--	--	15	.01	5
06...	--	--	--	--	--	--	--	--	146	.09	33
06...	--	--	--	--	--	--	--	--	52	.03	95
06...	--	--	--	--	--	--	--	--	28	.01	97
06...	--	--	--	--	--	--	--	--	32	.01	98
10-11	<.10	.1	<.1	<.10	.30	<.10	<.1	<.1	61	.09	92
11...	<.10	.1	<.1	.20	.10	<.10	<.1	<.1	113	.27	93
11...	<.10	.1	<.1	<.10	.10	<.10	<.1	<.1	103	.26	97
11...	--	--	--	--	--	--	--	--	166	1.5	93
15-16	--	--	--	--	--	--	--	--	313	1.9	84
27...	<.10	.2	<.1	<.10	<.10	<.10	<.1	<.1	144	.02	77

01576782 GOODS RUN TRIBUTARY AT WILLOW STREET, PA--Continued

CHEMISTRY AND PARTICLE-SIZE DISTRIBUTION OF SOIL, OCTOBER 1980 TO MAY 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	ATRAZINE TOTAL IN SOIL (MG/KG)	PROMETONE TOTAL IN SOIL (MG/KG)	PROMETRYNE TOTAL IN SOIL (MG/KG)	PROPAZINE TOTAL IN SOIL (MG/KG)
DEC												
01...	1300	15	4.5	3870	3890	410	19	.4	<.04	<.04	<.04	<.04

DATE	SIMAZINE TOTAL IN SOIL (MG/KG)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
DEC												
01...	<.04	20	30	44	58	70	81	88	92	96	99	100

01576783 GOODS RUN TRIBUTARY AT WEST WILLOW, PA

LOCATION.--Lat 39°58'00", long 76°17'53", Lancaster County, Hydrologic Unit 02050306, on right bank 0.18 mi (0.29 km) upstream from Penn Grant Road (LR 36137), 0.55 mi (0.88 km) southwest of West Willow, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--0.18 mi^2 (0.47 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 380 ft (116 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16.4 ft^3/s (0.464 m^3/s) Oct. 1, 1979, gage height, 2.23 ft (0.680 m), from rating curve extended above 11.0 ft^3/s (0.312 m^3/s); no flow on many days during August and September 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1980 to May 1981, 7.4 ft^3/s (0.21 m^3/s), Feb. 11, gage height 1.20 ft (0.366 m), no peaks above base of 10 ft^3/s (0.28 m^3/s); minimum 0.003 ft^3/s (0.001 m^3/s) Oct. 1, 2, 4-20, Nov. 14-16, gage height 0.47 ft (0.143 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.03	.02	.01	.04	.05	.06				
2	.00	.00	.02	.02	.17	.04	.04	.09				
3	.00	.00	.02	.02	.02	.03	.02	.07				
4	.00	.00	.02	.02	.01	.02	.02	.06				
5	.00	.00	.02	.02	.01	.02	.08	.05				
6	.00	.00	.02	.02	.01	.02	.10	.06				
7	.00	.00	.02	.02	.01	.02	.06	.05				
8	.00	.00	.02	.02	.01	.04	.05	.05				
9	.00	.00	.02	.01	.01	.06	.06	.04				
10	.00	.00	.02	.01	.01	.07	.05	.03				
11	.00	.00	.02	.01	2.4	.06	.04	.06				
12	.00	.00	.02	.01	.05	.05	.04	.06				
13	.00	.00	.02	.01	.02	.05	.04	.05				
14	.00	.00	.02	.02	.02	.05	.23	.04				
15	.00	.00	.01	.02	.02	.04	.13	.19				
16	.00	.00	.01	.02	.02	.04	.10	.12				
17	.00	.01	.02	.01	.02	.04	.08	.07				
18	.00	.07	.02	.01	.01	.03	.05	.06				
19	.00	.02	.02	.01	.02	.03	.05	.06				
20	.00	.02	.02	.01	.07	.03	.05	.04				
21	.00	.02	.02	.00	.08	.04	.05	.03				
22	.00	.02	.02	.00	.09	.04	.04	.03				
23	.00	.02	.02	.00	.63	.04	.06	.04				
24	.01	.29	.02	.01	.21	.03	.07	.04				
25	.07	.01	.02	.01	.09	.04	.06	.04				
26	.02	.05	.02	.02	.06	.03	.06	.04				
27	.01	.03	.02	.02	.04	.04	.04	.04				
28	.01	.03	.02	.02	.04	.04	.04	.04				
29	.01	.03	.02	.02	---	.05	.04	.04				
30	.01	.03	.02	.01	---	.05	.03	.03				
31	.01	---	.02	.01	---	.04	---	.03				
TOTAL	.15	.66	.61	.43	4.16	1.22	1.83	1.71				
MEAN	.005	.022	.020	.014	.15	.039	.061	.055				
MAX	.07	.29	.03	.02	2.4	.07	.23	.19				
MIN	.00	.00	.01	.00	.01	.02	.02	.03				
CFSM	.03	.12	.11	.08	.83	.22	.34	.31				
IN.	.03	.14	.13	.09	.85	.25	.38	.35				

CAL YR 1980 TOTAL 48.46 MEAN .13 MAX 1.5 MIN .00 CFSM .72 IN 9.96

01576783 GOODS RUN TRIBUTARY AT WEST WILLOW, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

REMARKS.--Soil sample analyses were run on samples collected from the top 4 inches (10.2 cm) of soil at 8 sites in the drainage basin and composited for analysis. Revisions to previously published pesticide data are shwon under "REVISED PESTICIDE ANALYSES".

REVISED PESTICIDE ANALYSES, JUNE TO SEPTEMBER 1979

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	STREAMFLOW, INSTANTANEOUS (CFS)	SIMAZINE TOTAL (UG/L)	PROMETRYNE TOTAL (UG/L)
JUN 1979					
18...	1230	--	.19	.00	.0
AUG					
07...	1505	--	--	.10	.0
29...	1715	--	.03	.00	.0
SEP					
05...	1645	--	.02	.00	.0
05...	2145	--	.27	.00	.0
06...	0120	--	1.7	.00	.0
06...	0300	--	11	.10	.0
06...	0430	--	6.8	.00	.0
06...	0710	--	.61	.00	.0

REVISED PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	STREAMFLOW, INSTANTANEOUS (CFS)	SIMAZINE TOTAL (UG/L)	PROMETRYNE TOTAL (UG/L)
OCT 1979					
23...	1305	--	.27	.10	.0
NOV					
19...	1430	--	.18	.00	.0
26...	0800	1.6	--	.00	.0
DEC					
19...	1140	--	.14	.00	.0
25...	0235	1.5	--	.00	.0
JAN 1980					
22...	1255	--	.16	.00	.0
FEB					
14...	1240	--	.11	.00	.0
MAR					
16...	1430	.68	--	.00	.0
17...	1415	.56	--	.00	.0
21...	1130	1.9	--	.10	.0
31...	1030	1.3	--	.10	.0
APR					
04...	0450	1.3	--	.00	.0
08...	1545	--	.27	.00	.0
09-10	--	.74	--	.00	.0
14...	1300	--	.29	.00	.0
14...	1830	--	.32	.00	.0
27-28	--	.91	--	.00	.0
28-29	--	2.1	--	.00	.0
30...	1055	1.4	--	.10	.0
30-30	--	3.6	--	.00	.0
MAY					
01-01	--	3.6	--	.00	.0
08...	1205	--	.30	.10	.0
21...	0700	1.0	--	1.3	.0
28...	1600	--	.23	.10	.0
JUN					
20...	1300	--	.18	.00	.0
28...	1945	2.7	--	1.6	.0
29-30	--	3.8	--	.60	.0
JUL					
15...	1415	--	.06	.10	.0
16...	1650	2.3	--	.40	.0
21...	1830	.38	--	.00	.0
AUG					
04...	1230	--	.02	.00	.0
11...	1920	--	.01	.10	.0
11...	2220	--	.01	.00	.0
SEP					
02...	1240	--	<.01	.00	.0
14...	1100	.41	--	.00	.0
14...	1315	--	--	.00	.0
26...	0001	.14	--	.00	.0

01576783 GOODS RUN TRIBUTARY AT WEST WILLOW, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT												
25...	0900	.20	--	604	.070	.050	20	14	.070	.020	1.50	.92
25...	1034	--	.16	624	--	--	--	--	--	--	--	--
25...	1040	--	.23	--	--	--	--	--	--	--	--	--
25...	1041	--	.23	--	--	--	--	--	--	<.010	--	--
NOV												
24...	1145	--	.11	675	--	--	--	--	--	--	--	--
24...	1430	--	.48	482	--	--	--	--	--	--	--	--
24-25	--	.46	--	528	.030	.020	16	16	.050	<.010	2.50	1.3
DEC												
02...	1230	--	.02	569	.010	.010	19	18	.010	.010	.20	.19
17...	1140	--	.02	633	.010	.010	21	19	<.010	<.010	.22	.22
JAN												
14...	1200	--	.02	516	.020	.020	22	21	.020	.020	.22	.19
FEB												
02...	0845	.31	--	489	.080	.060	15	15	.510	.510	3.10	1.8
11...	0310	3.7	--	445	.440	.400	19	17	.510	.490	4.80	3.0
11...	0730	--	4.5	413	--	--	--	--	--	--	--	--
11...	0745	--	4.5	421	--	--	--	--	--	--	--	--
23...	1340	1.3	--	459	.100	.030	13	13	.170	.070	2.40	1.1
25...	0950	--	.10	617	.020	.020	20	20	.040	<.010	.42	.35
MAR												
17...	1230	--	.04	509	<.010	<.010	20	19	.040	.040	.29	.28
APR												
08...	1105	--	.05	514	.020	.020	16	16	.050	.040	.19	.07
14...	0805	.40	--	448	.060	.020	11	11	.150	.110	2.40	.68
MAY												
15...	2030	.88	--	407	.140	.080	9.0	7.8	.650	.420	15.0	1.4
27...	1130	--	.04	510	.020	.020	15	15	.020	.020	.15	.13

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAI (MG/L AS C)	AME-TRYNE TOTAL	ATRA-TONE TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)
OCT												
25...	22	15	1.60	1.50	1.40	1.40	21	2.9	<.10	<.10	2.6	<.10
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	<.10	<.10	.70	<.10
25...	--	--	--	--	--	--	--	--	<.10	<.10	.70	<.10
NOV												
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24-25	19	17	2.40	1.50	1.60	1.50	8.9	7.3	<.10	<.10	.10	<.10
DEC												
02...	19	18	.170	.150	.150	.150	2.1	.2	<.10	<.10	1.9	<.10
17...	21	19	.100	.100	.070	.070	2.8	.2	<.10	<.10	1.3	<.10
JAN												
14...	22	21	.090	.060	.060	.050	1.0	.4	<.10	<.10	1.4	<.10
FEB												
02...	18	17	2.60	1.50	1.50	1.50	18	12	<.10	<.10	.20	<.10
11...	24	20	4.30	2.60	3.50	2.60	21	>8.0	<.10	<.10	5.4	<.10
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
23...	15	14	2.90	1.50	2.00	1.50	16	14	<.10	<.10	<.10	<.10
25...	20	20	.220	.200	.210	.190	3.9	.2	<.10	<.10	1.3	<.10
MAR												
17...	20	19	.130	.120	.120	.090	1.1	.2	<.10	<.10	<.10	<.10
APR												
08...	16	16	.110	.110	.100	.100	1.5	.3	<.10	<.10	1.4	<.10
14...	13	12	1.70	.680	1.00	.650	5.5	14	<.10	<.10	6.5	<.10
MAY												
15...	24	9.2	10.0	1.20	1.70	1.10	14	>25	<.10	<.10	38	<.10
27...	15	15	.100	.090	.070	.070	1.0	.5	<.10	<.10	.50	<.10

01576783 GOODS RUN TRIBUTARY AT WEST WILLOW, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	CYPRA-ZINE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TONE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	ALA-CHLOR (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
25...	<.10	<.1	<.1	.10	<.10	<.10	<.1	.1	73	.04	90
25...	--	--	--	--	--	--	--	--	69	.03	95
25...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	--	--	--
25...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	--	--	--
NOV											
24...	--	--	--	--	--	--	--	--	14	.00	82
24...	--	--	--	--	--	--	--	--	206	.27	97
24-25	<.10	.1	<.1	<.10	<.10	<.10	<.1	<.1	361	.45	92
DEC											
02...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	59	.00	61
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	35	.00	80
JAN											
14...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	87	.00	16
FEB											
02...	<.10	<.1	<.1	.30	.10	<.10	<.1	.3	516	.43	93
11...	<.10	<.1	<.1	.20	<.10	<.10	<.1	.2	1910	19	90
11...	--	--	--	--	--	--	--	--	3610	44	77
11...	--	--	--	--	--	--	--	--	4000	49	74
23...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	1040	3.7	95
25...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	26	.01	50
MAR											
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	103	.01	0
APR											
08...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	102	.01	8
14...	<.10	<.1	<.1	.20	.11	<.10	<.1	<.1	724	.78	96
MAY											
15...	<.10	.3	<.1	.30	.40	<.10	<.1	11	4120	9.8	98
27...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	94	.01	42

CHEMISTRY AND PARTICLE-SIZE DISTRIBUTION OF SOIL, OCTOBER 1980 TO MAY 1981

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	ATRAZINE TOTAL IN SOIL (MG/KG)	PROME-TONE TOTAL IN SOIL (MG/KG)	PROME-TRYNE TOTAL IN SOIL (MG/KG)	PROPA-ZINE TOTAL IN SOIL (MG/KG)
DEC												
01...	1110	16	4.9	3600	3620	860	16	.2	.81	<.04	<.04	<.04

DATE	SIMAZINE TOTAL IN SOIL (MG/KG)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
DEC												
01...	<.04	20	30	43	60	73	84	89	93	96	99	100

01576787 PEQUEA CREEK AT MARTIC FORGE, PA

LOCATION.--Lat 39°54'21", long 76°19'43", Lancaster County, Hydrologic Unit 02050306, on left bank 400 ft (122 m) upstream from bridge on State Highway 324 at Martic Forge and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--148 mi² (383 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1977 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 228.50 ft (69.65 m), by barometer.

REMARKS.--Water-discharge records good except those for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s (354 m³/s) Jan. 26, 1978, gage height, 16.44 ft (5.011 m); minimum, 10 ft³/s (0.28 m³/s) July 14, 1981, gage height 1.30 ft (0.396 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,310 ft³/s (37.1 m³/s) July 20, gage height 4.67 ft (1.484 m), minimum, 10 ft³/s (0.28 m³/s) July 14, gage height 1.30 ft (0.396 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	60	69	44	44	80	67	69	60	46	32	23
2	55	58	68	44	208	75	81	135	73	64	31	23
3	63	60	66	44	208	73	71	93	80	80	66	22
4	71	62	68	44	56	72	63	75	73	120	74	21
5	66	68	66	44	56	77	69	71	69	122	46	21
6	60	61	66	44	56	80	103	70	63	73	36	23
7	57	58	68	44	58	75	82	71	58	60	33	24
8	56	57	66	44	66	75	72	66	53	53	40	25
9	56	57	64	44	73	86	69	62	55	49	53	46
10	55	57	64	44	78	85	71	60	62	46	39	49
11	56	55	60	44	453	83	68	81	74	43	32	31
12	57	53	59	44	362	81	73	76	61	44	33	22
13	53	52	59	44	83	77	75	77	52	39	37	21
14	52	53	57	44	75	74	124	69	91	32	33	20
15	52	56	53	44	75	72	149	82	93	30	31	20
16	52	55	49	44	73	73	104	278	71	32	32	34
17	52	56	44	44	72	78	92	115	72	35	28	42
18	53	131	44	44	72	71	86	89	55	35	25	54
19	67	107	44	44	73	74	79	82	50	32	25	58
20	65	74	44	44	99	73	77	78	50	48	24	39
21	53	69	44	44	111	71	74	75	52	415	22	30
22	52	66	44	44	99	68	73	74	111	83	21	27
23	52	64	44	44	137	66	74	72	98	53	21	25
24	52	126	44	44	218	66	89	69	65	43	21	22
25	135	209	44	44	125	64	79	66	56	40	23	21
26	158	94	44	44	95	63	72	59	67	43	23	21
27	78	75	44	44	86	63	69	60	58	100	22	22
28	69	77	44	44	80	61	69	62	50	56	21	27
29	66	74	44	44	---	61	69	64	46	44	20	23
30	64	72	44	44	---	61	66	65	46	37	20	21
31	61	---	44	44	---	68	---	67	---	35	23	---
TOTAL	1993	2216	1662	1364	3291	2246	2409	2532	1964	2032	987	857
MEAN	64.3	73.9	53.6	44.0	118	72.5	80.3	81.7	65.5	65.5	31.8	28.6
MAX	158	209	69	44	453	86	149	278	111	415	74	58
MIN	52	52	44	44	44	61	63	59	46	30	20	20
CFSM	.43	.50	.36	.30	.80	.49	.54	.55	.44	.44	.22	.19
IN.	.50	.56	.42	.34	.83	.56	.61	.64	.49	.51	.25	.22

CAL YR 1980 TOTAL 51202 MEAN 140 MAX 709 MIN 44 CFSM .95 IN 12.87
WTR YR 1981 TOTAL 23553 MEAN 64.5 MAX 453 MIN 20 CFSM .44 IN 5.92

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1977 to May 1981 (discontinued).

PERIOD OF DAILY RECORD.--
KJELDAHL NITROGEN DISCHARGE: February 1977 to March 1979.
NITRITE PLUS NITRATE DISCHARGE: February 1977 to March 1979.
PHOSPHORUS DISCHARGE: February 1977 to March 1979.
DISSOLVED ORGANIC CARBON DISCHARGE: February 1977 to March 1979.
SUSPENDED ORGANIC CARBON DISCHARGE: February 1977 to March 1979.
SUSPENDED SEDIMENT DISCHARGE: February 1977 to March 1979.

REMARKS.--Revisions to previously published pesticide data are shown under "REVISED PESTICIDE ANALYSES."

REVISED PESTICIDE ANALYSES, JUNE TO JULY 1978

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
JUN 1978					
01...	1120	--	204	1.0	.0
02...	1100	--	202	.40	.0
03...	0320	--	195	.50	.0
03...	1001	--	264	5.4	.0
03...	1901	--	269	.20	.0
04...	1500	--	262	.60	.0
05...	1245	--	206	.40	.0
06...	0920	--	202	.50	.0
07...	1600	--	193	.40	.0
21...	2005	--	496	1.8	.0
21...	2350	--	--	1.1	.0
22...	0505	--	552	.60	.0
22...	0925	--	323	.00	.0
22...	1330	--	262	.00	.0
27...	1429	--	2960	.30	.0
JUL					
03...	1900	--	2510	.20	.0

REVISED PESTICIDE ANALYSES, APRIL TO SEPTEMBER 1979

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
APR 1979					
09-11	--	267	--	.00	.0
23...	1010	--	187	.10	.0
27-29	--	333	--	.50	.0
JUN					
02-05	--	303	--	.60	.0
17-18	--	300	--	.10	.0
25...	1030	--	139	.40	.0
25...	1100	--	--	.50	.0
JUL					
14-16	--	214	--	.50	.0
16-18	--	386	--	.60	.0
21-22	--	904	--	.20	.0
30-31	--	271	--	.60	.0
AUG					
07...	0800	--	110	.30	.0
11-14	--	227	--	.40	.0
27-29	--	209	--	.50	.0
29...	1840	--	110	.30	.0
29-31	--	402	--	.20	.2
SEP					
05...	1630	--	115	.10	.0
05-07	--	1910	--	.00	.0
06...	0150	--	2540	.00	.0
06...	0555	--	3740	.30	.0
06...	1115	--	6160	.30	.0
07...	1330	--	322	.20	.0
14-15	--	257	--	.00	.0
21-24	--	1250	--	.30	.0

REVISED PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
OCT 1979					
01-03	--	787	--	.20	.0
03-04	--	449	--	.10	.0
05-06	--	482	--	.20	.0
23...	1455	--	248	1.0	.0
23-25	--	305	--	.80	.0
NOV					
03-04	--	322	--	.10	.0
11-13	--	269	--	.00	.0
19...	0930	--	209	.00	.0
26-27	--	405	--	.40	.0
DEC					
19...	1015	--	172	.00	.0
25-26	--	346	--	.40	.0
JAN 1980					
11-13	--	296	--	.20	.0
18-19	--	261	--	.00	.0
22...	1445	--	180	.00	.0
FEB					
14...	1030	--	149	.00	.0
MAR					
13-15	--	258	--	.30	.0
15-16	--	223	--	.10	.0
16-19	--	261	--	.20	.0
21-23	--	389	--	.10	.0
25...	1200	136	--	.00	.0
29-30	--	265	--	.10	.0
31-31	--	421	--	.00	.0
APR					
01-03	--	421	--	.00	.0
08...	1220	--	226	.00	.0
09-10	--	319	--	.20	.0
27-30	--	419	--	.10	.0
MAY					
01-02	--	419	--	.10	.0
08...	1025	--	--	.20	.0
12-14	--	358	--	.40	.0
21-22	--	310	--	.50	.0
28...	1350	--	190	.50	.0
JUN					
20...	1230	--	144	.70	.0
28-30	--	306	--	.60	.0
JUL					
01-01	--	306	--	.60	.0
15...	1500	--	102	.30	.0
16-17	--	287	--	.30	.0
AUG					
04...	1410	--	88	.30	.0
SEP					
02...	1445	--	63	.50	.0

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

REVISED PESTICIDE ANALYSES, MAY TO JUNE 1978

DAY	TOTAL ATRAZINE		TOTAL SIMAZINE		TOTAL 2,4-D		TOTAL 2,4,5-T		TOTAL CHLORDANE		TOTAL DDD	
	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAYS)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)
							MAY					
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	.10	.11	.10	.11	.02	.02	.00	.00	.00	.00	.00	.00
4	.10	.11	.10	.11	.02	.02	.00	.00	.00	.00	.00	.00
5	.10	.12	.10	.12	.05	.06	.00	.00	.00	.00	.00	.00
6	.17	.19	.17	.19	.06	.07	.00	.00	.00	.00	.00	.00
7	.11	.12	.22	.24	.04	.04	.00	.00	.00	.00	.00	.00
8	.10	.11	.11	.12	.01	.01	.00	.00	.00	.00	.00	.00
9	.20	.26	.33	.42	.02	.03	.00	.00	.00	.00	.00	.00
10	2.9	3.8	.40	.52	.29	.38	.00	.00	.00	.00	.00	.00
11	.25	.28	.13	.14	.03	.03	.00	.00	.00	.00	.00	.00
12	.28	.30	.10	.11	.03	.03	.00	.00	.00	.00	.00	.00
13	.15	.16	.11	.12	.01	.01	.00	.00	.00	.00	.00	.00
14	1.3	2.8	.78	1.6	.15	.30	.01	.02	.10	.10	.01	.00
15	1.6	7.4	.32	1.4	.25	1.1	.01	.04	.10	.18	.00	.00
16	1.8	4.6	.37	.94	.12	.30	.00	.00	.00	.00	.00	.00
17	1.60	3.4	.32	.68	.09	.20	.00	.00	.00	.00	.00	.00
18	.75	1.3	.20	.36	.03	.05	.00	.00	.00	.00	.00	.00
19	.42	.72	.20	.35	.04	.07	.00	.00	.00	.00	.00	.00
20	.30	.46	.13	.20	.08	.12	.00	.00	.00	.00	.00	.00
21	.20	.28	.18	.26	.04	.06	.00	.00	.00	.00	.00	.00
22	.01	.09	.05	.07	.02	.03	.00	.00	.00	.00	.00	.00
23	.25	.32	.18	.23	.01	.01	.00	.00	.00	.00	.00	.00
24	.72	1.0	.12	.17	.02	.03	.00	.00	.00	.00	.00	.00
25	.34	.48	.20	.28	.01	.00	.00	.00	.00	.00	.00	.00
26	.30	.38	.21	.26	.00	.00	.00	.00	.00	.00	.00	.00
27	.21	.26	.20	.24	.01	.01	.00	.00	.00	.00	.00	.00
28	.27	.32	.20	.24	.00	.00	.00	.00	.00	.00	.00	.00
29	.14	.17	.13	.15	.01	.01	.00	.00	.00	.00	.00	.00
30	.17	.20	.30	.34	.01	.01	.00	.00	.00	.00	.00	.00
31	.12	.14	.63	.79	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	---	29.9	---	10.8	---	3.0	---	0.06	---	0.28	---	0.00

DAY	TOTAL DDE		TOTAL DDT		TOTAL DIAZANON		TOTAL DIELDRIN		TOTAL HEPTACHLOR		TOTAL LINDANE	
	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAYS)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCENTRATION (UG/L)	LOADS (LBS/DAY)
							MAY					
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.01	.00	.00	.00	.01	.00	.00	.00	.01	.00
15	.00	.00	.01	.00	.00	.00	.01	.01	.00	.00	.01	.00
16	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	---	0.00	---	0.00	---	0.00	---	0.01	---	0.00	---	0.00

NOTE: These tables supercede the tables published on page 331, WDR PA-78-2.

BEST DOCUMENT AVAILABLE

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

REVISED PESTICIDE ANALYSES, MAY TO JUNE 1978

DAY	TOTAL PROPA- MEAN CONCENTRATION (UG/L)	TOTAL PROPA- LOADS (LBS/DAYS)	TOTAL PCB MEAN CONCENTRATION (UG/L)	TOTAL PCB LOADS (LBS/DAY)	TOTAL SILVEX MEAN CONCENTRATION (UG/L)	TOTAL SILVEX LOADS (LBS/DAY)
						MAY
1	---	---	---	---	---	---
2	---	---	---	---	---	---
3	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00
10	.00	.00	.01	.02	.00	.00
11	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.10	.11
14	.00	.00	.03	.07	.00	.00
15	.10	.01	.05	.24	.00	.00
16	.00	.00	.02	.05	.00	.00
17	.00	.00	.01	.00	.00	.00
18	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00
24	.00	.00	.0C	.00	.00	.00
25	.00	.00	.01	.00	.00	.00
26	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00
TOTAL	---	0.01	---	0.38	---	0.11

DAY	TOTAL ATRAZINE MEAN CONCENTRATION (UG/L)	TOTAL ATRAZINE LOADS (LBS/DAYS)	TOTAL SIMAZINE MEAN CONCENTRATION (UG/L)	TOTAL SIMAZINE LOADS (LBS/DAY)	TOTAL 2,4-D MEAN CONCENTRATION (UG/L)	TOTAL 2,4-D LOADS (LBS/DAY)	TOTAL 2,4,5-T MEAN CONCENTRATION (UG/L)	TOTAL 2,4,5-T LOADS (LBS/DAY)	TOTAL CHLORDANE MEAN CONCENTRATION (UG/L)	TOTAL CHLORDANE LOADS (LBS/DAY)	TOTAL DDD MEAN CONCENTRATION (UG/L)	TOTAL DDD LOADS (LBS/DAY)
							JUNE					
1	.25	.28	.99	1.1	.01	.00	.00	.00	.00	.00	.00	.00
2	.27	.30	.33	.36	.03	.03	.00	.00	.00	.00	.00	.00
3	2.7	3.6	1.8	2.3	.22	.28	.00	.00	.10	.00	.00	.00
4	2.0	2.8	.46	.78	.07	.10	.00	.00	.00	.00	.00	.00
5	1.7	2.0	.45	.52	.05	.05	.00	.00	.00	.00	.00	.00
6	.75	.82	.55	.60	.03	.03	.00	.00	.00	.00	.00	.00
7	.45	.48	.48	.51	.02	.02	.00	.00	.00	.00	.00	.00
.	---	---	---	---	---	---	---	---	---	---	---	---
.	---	---	---	---	---	---	---	---	---	---	---	---
.	---	---	---	---	---	---	---	---	---	---	---	---
21	4.5	6.0	.80	1.1	.05	.07	.01	.01	.10	.02	.00	.00
22	7.8	17.2	.33	.74	.23	.50	.01	.01	.20	.34	.00	.00

NOTE: These tables supercede the tables published on page 332, WDR PA-78-2.

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

REVISED PESTICIDE ANALYSES, MAY TO JUNE 1978

DAY	TOTAL DDE MEAN CONCENTRATION (UG/L)	TOTAL DDE LOADS (LBS/DAYS)	TOTAL DDT MEAN CONCENTRATION (UG/L)	TOTAL DDT LOADS (LBS/DAY)	TOTAL DIAZANON MEAN CONCENTRATION (UG/L)	TOTAL DIAZANON LOADS (LBS/DAY)	TOTAL DIELDRIN MEAN CONCENTRATION (UG/L)	TOTAL DIELDRIN LOADS (LBS/DAY)	TOTAL HEPTACHLOR MEAN CONCENTRATION (UG/L)	TOTAL HEPTACHLOR LOADS (LBS/DAY)	TOTAL LINDANE MEAN CONCENTRATION (UG/L)	TOTAL LINDANE LOADS (LBS/DAY)
						JUNE						
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.01	.40	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.01	2.0	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.	---	---	---	---	---	---	---	---	---	---	---	---
.	---	---	---	---	---	---	---	---	---	---	---	---
.	---	---	---	---	---	---	---	---	---	---	---	---
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.01	.00	.01	.02	.01	.03	.01	.01	.01	.00	.00	.00

DAY	TOTAL PROPA- MEAN CONCENTRATION (UG/L)	TOTAL PROPA- LOADS (LBS/DAYS)	TOTAL PCB MEAN CONCENTRATION (UG/L)	TOTAL PCB LOADS (LBS/DAY)	TOTAL SILVEX MEAN CONCENTRATION (UG/L)	TOTAL SILVEX LOADS (LBS/DAY)
			JUNE			
1	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00
3	.00	.00	.01	.01	.00	.00
4	.00	.00	.01	.01	.00	.00
5	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00
.	---	---	---	---	---	---
.	---	---	---	---	---	---
.	---	---	---	---	---	---
21	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00

NOTE: These tables supercede the tables published on page 333, WDR PA-78-2.

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT												
01...	1255	--	55	376	.010	.010	5.9	5.9	.050	.030	.32	.25
25-27	--	161	--	339	.050	.040	4.4	4.4	.160	.130	1.20	.66
NOV												
18-19	--	137	--	335	.040	.040	6.6	1.9	.120	.120	.99	.57
DEC												
02...	1015	--	69	393	.020	.020	5.4	4.7	<.010	<.010	.34	.34
17...	1240	--	63	375	.020	.020	5.9	5.7	.030	<.010	.44	.05
JAN												
14...	1345	--	40	402	.020	.020	7.9	7.9	.070	.070	.26	.26
FEB												
03...	1000	187	--	339	--	--	--	--	--	--	--	--
03...	1210	157	--	342	--	--	--	--	--	--	--	--
11-12	--	476	--	355	.190	.160	4.3	4.3	2.10	2.10	4.80	4.3
20-21	--	115	--	395	.060	.060	5.0	4.9	.320	.320	1.20	.87
23-25	--	174	--	379	.070	.060	4.6	4.6	.450	.390	1.70	1.1
25...	1610	--	113	398	.070	.060	5.2	5.0	.380	.240	.99	.81
MAR												
17...	1335	--	75	387	.030	.020	5.0	4.7	.040	.030	.42	.42
APR												
05-07	--	98	--	--	.070	.060	3.4	3.3	.170	.170	.91	.47
08...	1301	--	71	--	.060	.060	3.7	3.7	.110	.110	.42	.42
14-16	--	142	--	--	.100	.070	3.9	3.9	.360	.360	1.50	.99
MAY												
01-03	--	121	--	343	.070	.070	3.4	3.4	.240	.240	1.30	.93
15-17	--	188	--	299	.140	.110	3.4	3.3	.480	.420	3.50	1.3
27...	1410	--	60	359	.050	.050	3.0	2.2	.070	.070	.95	.53

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	AME-TRYNE TOTAL	ATRA-TONE TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)
OCT												
01...	6.2	6.2	.120	.090	.060	.060	2.0	.5	<.10	<.10	.10	<.10
25-27	5.6	5.1	.490	.190	.190	.100	7.3	3.3	<.10	<.10	.10	<.10
NOV												
18-19	7.6	2.5	.260	.130	.120	.120	2.8	1.6	<.10	<.10	.10	<.10
DEC												
02...	5.7	5.0	.100	.080	.080	.070	.3	.4	<.10	<.10	.10	<.10
17...	6.3	5.8	.060	.050	.030	.020	3.3	.2	<.10	<.10	.10	<.10
JAN												
14...	8.2	8.2	.060	.040	.040	.030	1.0	.3	<.10	<.10	.10	<.10
FEB												
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
11-12	9.1	8.6	3.10	.830	.930	.760	17	>20	<.10	<.10	1.4	<.10
20-21	6.2	5.8	.310	.160	.170	.140	3.4	.3	<.10	<.10	<.10	<.10
23-25	6.3	5.7	.560	.190	.230	.180	3.6	3.5	<.10	<.10	.20	<.10
25...	6.2	5.8	.350	.200	.220	.170	3.8	2.0	<.10	<.10	.20	<.10
MAR												
17...	5.4	5.1	.060	.050	.050	.020	1.3	.5	<.10	<.10	<.10	<.10
APR												
05-07	4.3	3.8	.200	.070	.080	.060	3.3	--	<.10	<.10	.20	<.10
08...	4.1	4.1	.140	.070	.080	.070	3.1	.6	<.10	<.10	.10	<.10
14-16	5.4	4.9	.340	.130	.100	.070	5.4	1.8	<.10	<.10	<.10	<.10
MAY												
01-03	4.7	4.3	.260	.130	.120	.100	3.8	2.0	<.10	<.10	.60	<.10
15-17	6.9	4.6	1.10	.160	.350	.130	5.9	11	<.10	<.10	.20	<.10
27...	4.0	2.7	.180	.090	.080	.060	2.7	.7	<.10	<.10	.30	<.10

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	CYPRA-ZINE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TONE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	ALA-CHLOR (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
01...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	16	2.4	92
25-27	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	222	97	84
NOV											
18-19	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	73	27	90
DEC											
02...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	10	1.9	100
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	6	1.0	80
JAN											
14...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	6	.65	69
FEB											
03...	--	--	--	--	--	--	--	--	827	418	86
03...	--	--	--	--	--	--	--	--	802	340	98
11-12	<.10	<.1	<.1	<.10	1.8	<.10	<.1	<.1	2330	3000	87
20-21	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	78	24	100
23-25	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	193	91	99
25...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	53	16	100
MAR											
17...	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	3	.61	100
APR											
05-07	<.10	<.1	<.1	<.10	.10	<.10	<.1	<.1	58	15	86
08...	<.10	<.1	<.1	<.10	.20	<.10	<.1	<.1	36	6.9	77
14-16	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	110	42	88
MAY											
01-03	<.10	.1	<.1	<.10	.30	<.10	<.1	<.1	82	27	87
15-17	<.10	<.1	<.1	<.10	.80	<.10	<.1	2.5	663	337	93
27...	<.10	<.1	<.1	<.10	.30	<.10	<.1	<.1	41	6.6	94

01576786 PEQUEA CREEK TRIBUTARY NEAR MT. NEBO, PA

LOCATION.--Lat 39°53'28", long 76°18'14", Lancaster County, Hydrologic Unit 02050306, on left bank 75 ft (25 m) upstream from Steinman Farm Road (T403), 1.3 mi (2.1 km) northeast of Mt. Nebo, and 2.45 mi (3.9 km) upstream from mouth.

DRAINAGE AREA.--0.20 mi^2 (0.52 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 600 ft (183 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10.2 ft^3/s (0.289 m^3/s) Sept. 22, 1979, gage height, 0.97 ft (0.296 m); minimum 0.03 ft^3/s (0.001 m^3/s) Jan. 1 to Feb. 1, 1981, gage height 0.31 ft (.094 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1980 to May 1981, 2.5 ft^3/s (0.70 m^3/s), May 15, gage height 0.68 ft (0.207 m), no peaks above base of 2.7 ft^3/s (0.08 m^3/s); minimum, 0.03 ft^3/s (0.001 m^3/s) Jan. 1 to Feb. 1, gage height 0.31 ft (0.094 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.05	.08	.03	.03	.38	.37	.54				
2	.06	.05	.08	.03	.26	.32	.36	.56				
3	.07	.06	.09	.03	.05	.30	.32	.52				
4	.07	.09	.09	.03	.05	.30	.32	.51				
5	.07	.09	.09	.03	.05	.32	.46	.51				
6	.06	.10	.09	.03	.05	.30	.41	.53				
7	.06	.10	.10	.03	.05	.30	.41	.52				
8	.06	.08	.10	.03	.08	.32	.41	.51				
9	.06	.08	.11	.03	.06	.35	.42	.51				
10	.06	.08	.10	.03	.05	.35	.41	.57				
11	.06	.10	.10	.03	.30	.38	.45	.75				
12	.06	.11	.10	.03	.09	.35	.48	.52				
13	.06	.11	.10	.03	.08	.35	.44	.48				
14	.06	.11	.09	.03	.08	.38	.70	.45				
15	.05	.12	.08	.03	.08	.41	.65	.65				
16	.05	.13	.11	.03	.08	.43	.65	.91				
17	.05	.23	.09	.03	.08	.35	.65	.82				
18	.08	.22	.09	.03	.08	.35	.65	.78				
19	.06	.09	.09	.03	.08	.35	.62	.75				
20	.06	.09	.09	.03	.14	.35	.61	.71				
21	.06	.09	.09	.03	.13	.35	.48	.69				
22	.06	.10	.09	.03	.12	.35	.48	.67				
23	.07	.10	.09	.03	.48	.35	.59	.62				
24	.07	.36	.09	.03	.45	.35	.58	.58				
25	.20	.15	.09	.03	.38	.35	.51	.55				
26	.06	.10	.09	.03	.35	.35	.51	.53				
27	.05	.10	.09	.03	.35	.35	.48	.52				
28	.05	.10	.09	.03	.38	.35	.48	.48				
29	.05	.08	.09	.03	---	.32	.45	.44				
30	.05	.08	.09	.03	---	.35	.45	.42				
31	.05	---	.06	.03	---	.32	---	.40				
TOTAL	1.98	3.35	2.83	.93	4.46	10.73	14.80	18.00				
MEAN	.064	.11	.091	.030	.16	.35	.49	.58				
MAX	.20	.36	.11	.03	.48	.43	.70	.91				
MIN	.05	.05	.06	.03	.03	.30	.32	.40				
CFSM	.32	.55	.46	.15	.80	1.75	2.45	2.90				
IN.	.37	.62	.52	.17	.83	1.99	2.74	3.33				

CAL YR 1980 TOTAL 88.61 MEAN .24 MAX 1.6 MIN .05 CFSM 1.20 IN 16.40

01576788 PEQUEA CREEK TRIBUTARY NEAR MT. NEBO, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to May 1981 (discontinued).

REMARKS.--Soil sample analyses were run on samples collected from the top 4 inches (10.2 cm) of soil at 8 sites in the drainage basin and composited for analysis. Revisions to previously published pesticide data are shown under "REVISED PESTICIDE ANALYSES."

REVISED PESTICIDE ANALYSES, JUNE TO SEPTEMBER 1979

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
JUN 1979					
18...	1410	--	.25	.00	.0
AUG					
07...	1000	--	.09	.00	.0
29...	1910	--	.07	.00	.0
SEP					
05...	1535	--	.09	.00	.0
05...	1850	--	.42	.40	.0
05...	2300	--	.68	.00	.0
06...	0220	--	1.8	.00	.0
06...	0250	--	2.8	.00	.0
06...	0740	--	.42	.00	.0

REVISED PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SIMA-ZINE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
OCT 1979					
23...	1415	--	.38	.00	.0
NOV					
19...	1030	--	.30	.00	.0
26...	0745	.88	--	.00	.0
DEC					
19...	1050	--	.14	.00	.0
25...	0100	.66	--	.00	.0
JAN 1980					
11...	1600	.37	--	.00	.0
22...	1350	--	.22	.00	.0
FEB					
14...	1015	--	.18	.00	.0
22...	1057	.22	--	.00	.0
MAR					
13-14	--	.33	--	.00	.0
18...	0500	.64	--	1.3	.0
21...	1115	1.7	--	.00	.0
APR					
08...	1145	--	.73	.10	.0
09...	0555	1.2	--	.00	.0
14...	1255	--	.57	.00	.0
27-28	--	.61	--	.00	.0
30-30	--	.92	--	.00	.0
MAY					
01-01	--	.92	--	.00	.0
08...	1045	--	.73	.00	.0
28...	1420	--	.40	.00	.0
JUN					
01-02	--	.45	--	.00	.0
07...	2100	.62	--	.00	.0
20...	1150	--	.20	.00	.0
28...	1945	.40	--	.00	.0
29...	2130	.71	--	.00	.0
JUL					
15...	1530	--	.11	.00	.0
16...	1620	.28	--	.00	.0
AUG					
04...	1330	--	.02	.00	.0
11...	1910	--	.07	.00	.0
11...	2045	--	.65	.00	.0
SEP					
02...	1335	--	.06	.00	.0
25-26	--	.17	--	.00	.0

BEST DOCUMENT AVAILABLE

01576788 PEQUEA CREEK TRIBUTARY NEAR MT. NEBO, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT												
01...	1135	--	.05	59	<.010	<.010	2.2	2.1	.040	.030	.37	.09
18...	1500	.13	--	78	.010	.010	1.9	1.8	.050	.050	1.10	.45
25...	0710	.37	--	92	.010	<.010	1.4	.96	.060	.020	1.60	.28
NOV												
24...	1000	.69	--	96	.010	.010	1.1	1.1	.050	.020	.68	.39
24...	1035	--	.41	75	--	--	--	--	--	--	--	--
DEC												
02...	1200	--	.08	64	<.010	<.010	2.5	1.9	.010	.010	.27	.11
17...	1225	--	.09	63	<.010	<.010	2.3	2.3	.010	.010	.13	.13
JAN												
14...	1230	--	.03	54	<.010	<.010	2.4	2.3	.020	.020	.14	.12
FEB												
11...	0640	.33	--	93	<.010	<.010	1.7	1.7	.140	.140	.76	.35
23...	1630	.85	--	99	.010	.010	1.6	1.6	.070	.070	.67	.51
25...	1535	--	.35	96	<.010	<.010	3.1	2.6	.050	<.010	.22	.17
MAR												
17...	1320	--	.38	103	<.010	<.010	3.5	3.4	.020	.020	.29	.29
APR												
05...	1540	.66	--	98	.030	.030	2.4	.53	.060	.060	.77	.44
08...	1146	--	.41	105	<.010	<.010	3.4	3.4	.060	.060	.18	.16
14...	0710	1.0	--	93	<.010	<.010	2.2	2.1	.230	.230	.68	E.50
MAY												
10-11	--	.89	--	97	<.010	<.010	2.8	2.8	.080	.080	.74	.35
11...	0920	.88	--	99	<.010	<.010	2.8	2.6	.090	.090	.63	.63
15...	1425	.86	--	122	.020	.010	2.3	2.3	.070	.050	2.60	.73
15...	2050	1.4	--	127	.020	<.010	1.7	1.6	.060	.040	4.20	.41
27...	1225	--	.50	109	<.010	<.010	4.2	4.1	.070	.070	.31	.27

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	AME-TRYNE TOTAL	ATRA-TONE TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)
OCT												
01...	2.6	2.2	.010	.010	.010	.010	.9	.4	<.10	<.10	<.10	<.10
18...	3.0	2.3	.080	.010	.020	<.010	5.8	>8.0	<.10	<.10	.50	<.10
25...	3.0	1.2	.190	.030	.030	<.010	11	11	<.10	<.10	<.10	<.10
NOV												
24...	1.8	1.5	.070	.010	.030	<.010	15	--	<.10	<.10	<.10	<.10
24...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
02...	2.8	2.0	.010	.010	.010	.010	<.1	.2	<.10	<.10	<.10	<.10
17...	2.4	2.4	.020	.020	.020	.020	3.7	.2	<.10	<.10	<.10	<.10
JAN												
14...	2.5	2.4	.020	<.010	.010	<.010	.8	.3	<.10	<.10	<.10	<.10
FEB												
11...	2.5	2.1	.090	.060	.060	.060	8.7	--	<.10	<.10	<.10	<.10
23...	2.3	2.1	.190	.040	.050	.010	7.3	2.7	<.10	<.10	.20	<.10
25...	3.3	2.8	.010	.010	.010	.010	.6	.2	<.10	<.10	<.10	<.10
MAR												
17...	3.8	3.7	<.010	<.010	<.010	<.010	2.0	.2	<.10	<.10	<.10	<.10
APR												
05...	3.2	.97	.030	.020	.020	.020	6.5	1.8	<.10	<.10	<.10	<.10
08...	3.6	3.6	.030	.030	.030	.030	1.6	.2	<.10	<.10	<.10	<.10
14...	2.9	E2.6	.170	.060	.060	.060	4.5	13	<.10	<.10	<.10	<.10
MAY												
10-11	3.5	3.2	.070	.010	.010	.010	3.5	1.5	<.10	<.10	<.10	<.10
11...	3.4	3.2	.080	.070	.020	<.010	3.2	1.0	<.10	<.10	.10	<.10
15...	4.9	3.0	.280	<.010	.040	<.010	4.0	--	<.10	<.10	.10	<.10
15...	5.9	2.0	.420	.010	.040	<.010	6.0	>17	<.10	<.10	<.10	<.10
27...	4.5	4.4	.020	.010	.020	.010	1.2	.2	<.10	<.10	<.10	<.10

E = Estimated value.

01576788 PEQUEA CREEK TRIBUTARY AT MT. NEBO, PA--Continued

WATER-QUALITY DATA, OCTOBER 1980 TO MAY 1981

DATE	CYPRAZINE TOTAL (UG/L)	PROMETONE TOTAL (UG/L)	PROMETRYNE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETONE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)	ALACHLOR (UG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
01...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	4	.00	27
18...	<.10	.3	<.1	<.10	<.10	<.10	<.1	<.1	84	.03	76
25...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	205	.20	60
NOV											
24...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	62	.12	43
24...	--	--	--	--	--	--	--	--	7	.01	34
DEC											
02...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	2	.00	50
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	6	.00	47
JAN											
14...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	4	.00	40
FEB											
11...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	29	.03	72
23...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	54	.12	65
25...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	1	.00	100
MAR											
17...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	1	.00	100
APR											
05...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	29	.05	62
08...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	1	.00	100
14...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	134	.36	70
MAY											
10-11	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	65	.16	80
11...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	22	.05	73
15...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	328	.76	85
15...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	632	2.4	85
27...	<.10	<.1	<.1	<.10	<.10	<.10	<.1	<.1	6	.01	85

CHEMISTRY AND PARTICLE-SIZE DISTRIBUTION OF SOIL, OCTOBER 1980 TO MAY 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	ATRAZINE, TOTAL IN SOILS (MG/KG)	PROMETONE, TOTAL IN SOILS (MG/KG)	PROMETRYNE, TOTAL IN SOILS (MG/KG)	PROPAZINE TOTAL IN SOILS (MG/KG)
DEC												
01...	0945	35	9.8	12800	12800	470	65	.3	<.04	<.04	<.04	<.04

DATE	SIMAZINE TOTAL IN SOILS (MG/KG)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
DEC												
01...	<.04	19	29	42	55	62	70	80	87	91	94	97

01578400 BOWERY RUN NEAR QUARRYVILLE, PA

LOCATION.--Lat 39°53'41", long 76°06'50", Lancaster County, Hydrologic Unit 02050306, on left bank at single-span bridge, 1.1 mi (1.8 km) upstream from mouth and 2.5 mi (4.0 km) east of Quarryville.

DRAINAGE AREA.--5.98 mi² (15.49 km²).

PERIOD OF RECORD.--October 1962 to March 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 468.08 ft (142.671 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1963-80), 8.20 ft³/s (0.232 m³/s), 18.62 in/yr (473 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 6,740 ft³/s (191 m³/s), probably occurred Jan. 26, 1978, gage height, 10.2 ft (3.109 m) from floodmark, from rating curve extended above 620 ft³/s (17.6 m³/s) on basis of slope-area measurement of peak flow; minimum 1.0 ft³/s (0.028 m³/s) Sept. 1, 2, 3, 4, 9, 10, 11, 12, 1966; minimum gage height, 2.32 ft (0.707 m) July 6, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 220 ft³/s (6.23 m³/s) Feb. 2, gage height, 4.46 ft (1.359 m); minimum daily, 2.0 ft³/s (0.057 m³/s), Jan. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.5	2.7	2.4	2.9	3.9						
2	3.1	3.5	2.6	2.3	41	3.6						
3	3.7	3.3	2.9	2.2	4.0	3.4						
4	3.4	3.9	2.9	2.2	3.3	3.3						
5	3.1	3.7	2.9	2.1	2.9	3.7						
6	2.9	3.7	2.9	2.0	2.9	3.7						
7	2.9	3.7	3.1	2.3	2.9	3.6						
8	2.9	3.5	3.1	2.3	7.5	4.4						
9	2.9	3.5	3.1	2.2	3.3	5.3						
10	2.9	3.5	2.9	2.2	3.2	4.5						
11	3.1	3.7	2.9	2.2	51	4.3						
12	3.1	3.7	2.9	2.1	5.4	4.0						
13	3.1	3.7	2.9	2.1	4.0	3.6						
14	3.1	3.7	2.7	2.1	3.8	3.4						
15	3.1	3.7	2.7	2.5	3.5	3.4						
16	3.1	3.9	2.4	2.9	3.4	4.3						
17	3.1	9.4	2.9	2.6	3.6	3.6						
18	3.9	4.2	2.7	2.8	3.8	3.4						
19	3.3	3.7	2.9	3.0	4.0	3.4						
20	3.1	3.5	2.6	3.0	7.8	3.5						
21	3.3	3.3	2.4	2.9	5.7	3.4						
22	3.3	3.3	2.4	2.9	5.1	3.4						
23	3.5	3.3	2.6	3.3	14	3.4						
24	3.5	10	2.7	3.1	7.5	3.3						
25	10	5.0	2.4	3.1	4.9	3.3						
26	4.4	3.3	2.2	3.3	4.2	3.2						
27	3.5	2.9	2.2	3.5	3.8	3.1						
28	3.5	3.5	2.4	3.3	4.0	3.1						
29	3.3	2.9	2.4	3.1	---	3.0						
30	3.3	2.7	2.2	2.9	---	3.4						
31	3.3	---	2.2	2.7	---	3.1						
TOTAL	107.6	119.2	82.8	81.6	213.4	112.0						
MEAN	3.47	3.97	2.67	2.63	7.62	3.61						
MAX	10	10	3.1	3.5	51	5.3						
MIN	2.9	2.7	2.2	2.0	2.9	3.0						
CFSM	.58	.66	.45	.44	1.27	.60						
IN.	.67	.74	.51	.51	1.33	.70						

CAL YR 1980 TOTAL 2223.6 MEAN 6.08 MAX 45 MIN 2.2 CFSM 1.02 IN 13.83

01603500 EVITTS CREEK NEAR CENTERVILLE, PA

LOCATION.--Lat 39°47'23", long 78°38'48", Bedford County, Hydrologic Unit 02070002, on left bank 2.0 mi (3.2 km) upstream from Thomas W. Koon Dam, 3.0 mi (4.8 km) south of Centerville, 7.0 mi (11.3 km) upstream from Rock Gully Creek, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--30.2 mi^2 (78.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1932 to current year. Prior to October 1952, published as "near Bedford Valley."

REVISED RECORDS.--WSP 781: 1933(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,027.59 ft (313.209 m) City of Cumberland datum.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 32.3 ft^3/s (0.915 m^3/s), 14.52 in/yr (369 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,240 ft^3/s (148 m^3/s) Mar. 17, 1936, gage height, 7.13 ft (2.173 m), from rating curve extended above 400 ft^3/s (11.3 m^3/s) on basis of slope-area measurements at gage heights 4.64 ft (1.414 m) and 7.13 ft (2.173 m); minimum, 0.70 ft^3/s (0.020 m^3/s) Dec. 17, 1958, gage height, 0.79 ft (0.241 m), result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 8 ft (2.4 m), from floodmark, date unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 13	0345	849	24.0	3.45	1.052	July 3	0315	400	11.3	2.80	0.853
June 20	0245	*869	24.6	3.39	1.033						

Minimum discharge, 3.3 ft^3/s (0.093 m^3/s) Aug. 29, 30, gage height, 1.12 ft (0.341 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	5.1	17	7.6	13	49	22	33	61	24	6.9	30
2	4.4	4.8	52	7.0	72	42	26	32	59	56	6.6	25
3	4.8	4.8	42	6.6	34	37	22	27	58	142	13	62
4	4.8	5.1	37	6.8	35	33	22	25	91	51	9.6	84
5	4.4	4.8	31	6.2	42	34	25	24	82	39	7.7	90
6	4.2	4.6	28	5.8	48	32	23	24	61	34	8.8	47
7	4.2	4.6	25	5.6	40	29	21	23	52	28	9.2	32
8	4.2	5.4	30	5.7	32	27	20	21	44	25	7.8	27
9	4.2	5.6	50	5.8	27	27	20	20	42	22	6.5	35
10	4.0	6.5	42	6.2	26	29	19	20	51	20	5.8	30
11	4.2	5.1	38	5.8	84	30	25	100	42	18	5.4	25
12	4.0	4.6	35	5.8	50	28	212	163	30	17	5.4	19
13	4.0	4.6	29	6.0	53	26	518	82	27	15	5.0	16
14	4.0	4.6	22	6.0	54	25	368	64	55	16	4.9	14
15	4.2	4.6	23	6.1	47	23	234	123	37	14	7.8	18
16	4.0	5.4	24	6.0	37	26	152	105	26	13	6.1	42
17	4.0	5.9	11	6.4	29	26	120	66	23	12	4.9	32
18	4.2	12	9.0	5.8	24	24	97	56	21	11	4.5	25
19	4.4	11	8.0	5.8	28	23	74	57	40	10	4.2	21
20	4.2	9.2	7.0	5.6	127	22	64	50	433	9.6	4.0	19
21	4.2	8.8	6.4	6.6	142	22	52	42	104	9.8	4.0	17
22	4.0	9.9	6.8	7.2	97	22	46	36	105	10	3.9	15
23	4.0	9.2	8.5	6.8	160	22	45	32	67	9.6	3.9	13
24	4.0	80	7.2	6.6	146	20	49	30	50	9.9	3.8	12
25	37	38	7.0	6.4	97	19	43	27	56	10	3.8	11
26	16	18	7.2	6.4	71	18	36	28	60	10	3.7	10
27	8.1	14	6.8	6.4	56	19	34	30	37	14	3.6	9.8
28	6.8	18	7.6	6.7	51	18	31	47	31	12	3.5	9.4
29	5.9	15	8.8	7.2	---	17	31	244	27	12	3.4	9.0
30	5.4	13	8.2	6.9	---	19	31	92	25	9.0	4.5	8.8
31	5.4	---	8.0	6.5	---	19	---	90	---	7.6	15	---
TOTAL	185.6	342.2	642.5	196.3	1722	807	2482	1813	1897	690.5	187.2	808.0
MEAN	5.99	11.4	20.7	6.33	61.5	26.0	82.7	58.5	63.2	22.3	6.04	26.9
MAX	37	80	52	7.6	160	49	518	244	433	142	15	90
MIN	4.0	4.6	6.4	5.6	13	17	19	20	21	7.6	3.4	8.8
CFSM	.20	.38	.69	.21	2.04	.86	2.74	1.94	2.09	.74	.20	.89
IN.	.23	.42	.79	.24	2.12	.99	3.06	2.23	2.34	.85	.23	1.00

CAL YR 1980 TOTAL 11738.9 MEAN 32.1 MAX 406 MIN 4.0 CFSM 1.06 IN 14.46
WTR YR 1981 TOTAL 11773.3 MEAN 32.3 MAX 518 MIN 3.4 CFSM 1.07 IN 14.50

01613050 TONOLOWAY CREEK NEAR NEEDMORE, PA

LOCATION.--Lat 39°53'54", long 78°07'57", Fulton County, Hydrologic Unit 02070004, on left bank 10 ft (3 m) downstream from bridge on Legislative Route 29015, 0.2 mi (0.3 km) upstream from Foster Creek, and 3.5 mi (5.6 km) north of Needmore.

DRAINAGE AREA.--10.7 mi² (27.7 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximums, water years 1963-65. October 1965 to current year.

REVISED RECORDS.--WSP 2103: 1966-68(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 688.94 ft (209.989 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 2, 1965, crest-stage gage at same site and datum 2.0 ft (0.61 m) higher.

REMARKS.--Records good except for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 12.5 ft³/s (0.354 m³/s), 15.86 in/yr (403 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) June 22, 1972, 9.17 ft (2.795 m), from rating curve extended above 540 ft³/s (15.3 m³/s) on basis of contracted-opening measurement of peak flow; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 2	-	-	-	ice jam		Apr. 12	2330	*300	8.50	5.10	1.554
Feb. 11	-	-	-	ice jam		Apr. 14	0730	212	6.00	4.62	1.408
Feb. 20	-	-	-	a*6.38	1.945						

No flow Oct. 1, 2, 3.
a Ice jam

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.21	1.6	.34	.78	15	5.9	8.8	5.9	2.3	1.4	1.5
2	.00	.19	1.9	.33	20	12	6.1	8.4	6.4	4.6	1.1	1.0
3	.00	.21	3.0	.33	13	9.7	5.5	7.0	6.5	9.0	2.3	3.0
4	.01	.23	2.3	.32	9.0	8.6	6.3	6.7	8.0	30	5.8	2.5
5	.03	.23	2.1	.31	5.6	8.9	6.4	6.7	7.7	21	2.7	2.7
6	.03	.25	1.9	.31	3.5	7.9	5.8	6.9	7.0	12	2.3	1.8
7	.03	.21	1.8	.30	3.0	7.3	5.4	6.4	6.5	7.9	2.3	1.5
8	.03	.28	1.6	.30	2.7	7.1	5.4	5.8	5.8	6.2	1.9	3.0
9	.02	.34	1.9	.29	2.6	7.5	5.8	5.5	8.0	5.1	1.6	3.6
10	.02	.37	3.0	.29	2.5	8.1	5.4	6.0	9.3	4.3	1.2	1.9
11	.02	.25	2.1	.28	61	8.5	9.4	31	7.6	3.6	1.0	1.5
12	.01	.23	2.1	.26	40	8.1	109	60	6.3	3.0	2.3	1.2
13	.01	.25	1.9	.25	20	8.1	216	45	8.5	3.4	.76	.93
14	.01	.19	1.8	.26	16	7.7	160	31	37	2.5	.67	.84
15	.01	.19	1.6	.28	13	7.3	112	27	25	1.9	.93	1.2
16	.01	.25	1.6	.32	12	10	73	21	15	1.8	1.6	5.1
17	.02	.34	1.4	.37	11	9.6	52	15	11	1.8	.76	2.7
18	.02	1.4	1.5	.43	10	11	39	13	8.0	1.5	.51	1.9
19	.03	1.2	1.2	.50	23	9.2	26	12	6.7	1.2	.31	1.6
20	.03	.84	1.0	.57	181	8.5	20	10	7.4	1.5	.25	1.5
21	.03	.67	.67	.61	95	8.0	15	8.7	5.9	1.5	.19	1.2
22	.04	.76	.45	.65	64	7.0	13	7.4	5.8	1.2	.17	1.2
23	.04	.84	.43	.73	81	6.5	14	6.5	4.6	.84	.12	1.0
24	.04	12	.41	.80	98	6.1	14	5.9	4.0	1.0	.08	.76
25	3.0	9.1	.40	.64	62	5.7	11	5.3	4.8	1.9	.07	.62
26	1.6	4.6	.39	1.0	39	5.3	9.0	9.4	4.8	3.8	.08	.62
27	.62	3.4	.38	1.6	25	5.3	8.1	7.0	3.6	6.0	.06	.51
28	.40	3.0	.37	1.3	19	4.9	7.4	7.4	3.0	3.4	.06	.40
29	.34	2.5	.36	1.0	---	4.9	7.9	13	2.5	3.4	.05	.34
30	.28	1.9	.35	.88	---	6.1	7.6	8.4	2.3	2.1	.04	.37
31	.23	---	.34	.83	---	5.7	---	7.3	---	1.6	1.4	---
TOTAL	6.96	46.43	41.85	16.68	932.68	245.6	981.4	419.5	244.9	151.34	34.01	47.99
MEAN	.22	1.55	1.35	.54	33.3	7.92	32.7	13.5	8.16	4.88	1.10	1.60
MAX	3.0	12	3.0	1.6	181	15	216	60	37	30	5.8	5.1
MIN	.00	.19	.34	.25	.78	4.9	5.4	5.3	2.3	.84	.04	.34
CFSM	.02	.15	.13	.05	3.11	.74	3.06	1.26	.76	.46	.10	.15
IN.	.02	.16	.15	.06	3.24	.85	3.41	1.46	.85	.53	.12	.17

CAL YR 1980 TOTAL 3595.89 MEAN 9.82 MAX 140 MIN .00 CFSM .92 IN 12.50
WTR YR 1981 TOTAL 3169.34 MEAN 8.68 MAX 216 MIN .00 CFSM .81 IN 11.02

01614090 CONOCOCHEAQUE CREEK NEAR FAYETTEVILLE, PA

LOCATION.--Lat 39°55'48", long 77°26'23", Adams County, Hydrologic Unit 02070004, on right bank 20 ft (6 m) downstream from bridge on State Highway 233, 0.3 mi (0.5 km) upstream from Birch Run, 1.3 mi (2.1 km) upstream from Chambersburg Reservoir Dam, 4 mi (6 km) northeast of Fayetteville, and 12 mi (19 km) east of Chambersburg.

DRAINAGE AREA.--5.05 mi^2 (13.08 km^2).

PERIOD OF RECORD.--August 1960 to March 1981 (discontinued).

GAGE.--Water-stage recorder, and concrete control. Datum of gage is 1,132.76 ft (345.265 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years (water years 1961-80), 7.36 ft^3/s (0.208 m^3/s), 19.79 in/yr (503 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392 ft^3/s (11.1 m^3/s) June 22, 1972, gage height 3.45 ft (1.052 m), from rating curve extended above 160 ft^3/s (4.53 m^3/s) on basis of contracted opening and flow-over-road measurement of peak flow; minimum 0.03 ft^3/s (0.001 m^3/s) Dec. 26, 27, 28, 1980, gage height 0.57 ft (0.174 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, during period Oct. 1980 to March 1981, 230 ft^3/s (6.51 m^3/s) Feb. 23, gage height, 3.25 ft (0.991 m); minimum 0.03 ft^3/s (0.001 m^3/s) Dec. 26, 27, 28, gage height 0.57 ft (0.174 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.67	1.2	.18	.38	16						
2	.50	.58	1.5	.17	2.0	13						
3	.54	.58	2.1	.17	.70	12						
4	.63	.71	1.2	.16	.64	9.9						
5	.54	.71	1.1	.16	.60	9.9						
6	.50	.63	1.0	.15	.59	8.8						
7	.50	.63	1.0	.15	.58	7.8						
8	.50	.75	1.0	.14	.70	7.5						
9	.45	.71	1.0	.14	.68	7.2						
10	.42	.71	1.3	.13	.63	7.2						
11	.54	.58	.96	.13	15	7.5						
12	.40	.56	.90	.12	4.0	6.8						
13	.40	.56	.84	.12	2.6	7.5						
14	.40	.56	.78	.12	2.3	6.5						
15	.42	.56	.75	.12	2.1	5.9						
16	.42	.58	.90	.14	2.0	8.5						
17	.40	.63	.71	.13	1.9	7.2						
18	.50	1.4	.78	.12	1.7	5.9						
19	.63	.84	.75	.15	2.0	5.9						
20	.45	.71	.63	.20	3.5	5.9						
21	.42	.71	.28	.25	5.3	5.6						
22	.42	.78	.25	.35	16	5.3						
23	.40	.78	.20	.45	91	5.3						
24	.45	14	.14	.56	85	5.1						
25	7.2	4.8	.09	.68	44	4.8						
26	2.4	2.0	.08	.75	29	4.8						
27	1.0	1.5	.08	.70	22	4.8						
28	.90	1.8	.09	.60	18	4.4						
29	.75	1.7	.15	.50	---	4.4						
30	.71	1.3	.20	.45	---	5.9						
31	.67	---	.19	.43	---	5.3						
TOTAL	25.00	43.03	22.15	8.62	354.90	222.6						
MEAN	.81	1.43	.71	.28	12.7	7.18						
MAX	7.2	14	2.1	.75	91	16						
MIN	.40	.56	.08	.12	.38	4.4						
CFSM	.16	.28	.14	.06	2.52	1.42						
IN.	.18	.32	.16	.06	2.61	1.64						

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected this year at partial-record stations are presented in a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a second table.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN					
		Chemung River basin					
01518400	Crooked Creek at Middlebury Center, Pa.	Lat 41°50'33", long 77°16'36", Tioga County, at single-span bridge on State Route 287 at Middlebury Center.	74.2	1980-81	4-29-81	a45.56	1,500
01519200	Cowanesque River at Elkland, Pa.	Lat 41°59'15", long 77°18'09", Tioga County, at single-span steel-truss bridge on State Route 49 at Elkland.	235	1980-81	5-15-81	23.89	8,780
		Sugar Creek basin					
01531250	North Branch Sugar Creek tributary near Columbia Cross Roads, Pa.	Lat 41°50'25", long 76°49'38", Bradford County, at bridge on secondary road, 14 miles upstream from mouth and 1.5 miles west of Columbia Cross Roads.	8.83	1962-68‡	1-09-78	5.34	1,430
				1969-81	3-06-79	4.51	810
					3-21-80	5.79	1,930
					2-23-81	4.55	740
		Towanda Creek basin					
01532200	South Branch Towanda Creek at New Albany, Pa.	Lat 41°35'25", long 76°26'00", Bradford County, at bridge on gravel road, 0.1 mile below French Creek, 0.7 mile above Beaver Run and 0.8 mile south of New Albany.	13.3	1963-81	2-23-81	b4.99	497
		Tuscarora Creek basin					
01533250	Tuscarora Creek near Silvara, Pa.	Lat 41°42'25", long 76°07'10", Bradford County, at culvert on gravel road, 1 mile northeast of Silvara, 1.1 miles above Mill Creek, and 4.6 miles above mouth.	11.8	1963-81	2-11-81	c5.53	293
		West Branch Susquehanna River basin					
01542720	Wilson Run at Penfield, Pa.	Lat 41°12'58", long 78°35'00", Clearfield County, at wooden bridge, 200 ft north of State Highway 153, 0.8 mile northwest of Penfield, and 0.7 mile above mouth.	8.34	1962-81	2-20-81	3.67	411
01545800	West Branch Susquehanna River at Lock Haven, Pa.	Lat 41°03'17", long 77°26'32", Clinton County, on right bank, 50 feet downstream from Jay St. Bridge and 2.3 miles upstream from Bald Eagle Creek.	3,345	1975-81	2-21-81	16.82	55,500

‡ Operated as a continuous-record station.
a Maximum gage height 46.86 ft., February 11, 1981 (ice jam).
b Maximum gage height 6.32 ft., February 11, 1981 (ice jam).
c Using auxiliary gage.

Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		SUSQUEHANNA RIVER BASIN--Continued					
		West Branch Susquehanna River basin--Continued					
01548020	Bull Run near Loganton, Pa.	Lat 41°00'30", long 77°19'35", Clinton County, at pipe culvert on State Route 477, and 2 miles southeast of Loganton.	1.99	1963-81	2-23-81	6.72	103
01553050	White Deer Hole Creek near Elimsport, Pa.	Lat 41°07'05", long 77°04'00", Lycoming County, at bridge on L.R. 41001, 2.5 miles west of Elimsport and 12.5 miles above mouth. Datum of gage is 650.84 ft NGVD of 1929.	18.2	1961-81	2-23-81	c4.77	1,080
		Juniata River basin					
01556400	Sandy Run near Bellwood, Pa.	Lat 40°33'47", long 78°20'35", Blair County, at bridge on private road, 0.6 mile above mouth, and 2.5 miles south of Bellwood.	5.58	1962-81	2-20-81	4.68	220
01556500	Little Juniata River at Tipton, Pa.	Lat 40°37'40", long 78°17'38", Blair County, at Tipton, 100 ft below bridge on State Highway 220, and 150 ft below Tipton Run. Datum of gage is 946.76 ft NGVD of 1929.	93.7	1946-62‡ 1963-81	2-21-81	6.59	2,590
01557100	Schell Run at Tyrone, Pa.	Lat 40°40'00", long 78°15'00", Blair County, 0.2 mile above U.S. Highway 220 between 5th Street and Shippen Street, Tyrone. Datum of gage is 919.11 ft NGVD of 1929.	1.68	1958-62‡ 1963-81	2-24-81	a2.48	161
01565920	Lick Run near East Waterford, Pa.	Lat 40°21'15", long 77°38'55", Juniata County, at culvert on L.R. 34070, 0.7 mile above mouth, and 1.5 miles southwest of East Waterford.	8.38	1962-81	2-11-81	8.20	703
		Conodoguinet Creek basin					
01569340	Newburg Run at Newburg, Pa.	Lat 40°07'40", long 77°32'50", Cumberland County, at concrete bridge on State Highway 696, 0.4 mile above mouth, and 0.8 mile south of Newburg.	5.29	1964-81	2-23-81	4.91	340
		Paxton Creek basin					
01571000	Paxton Creek near Penbrook, Pa.	Lat 40°18'30", long 76°51'00", on right bank, 92 feet upstream from culvert on North Progress Ave. and 2 miles north of Penbrook, Dauphin County.	11.2	1940-50 1974-81	2-23-81	5.88	989

‡ Operated as a continuous-record station.
a Maximum gage height 2.73 ft., February 21, 1981 (ice jam).
c Using auxiliary gage.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (ft^3/s)	Annual maximum Dis-charge
		SUSQUEHANNA RIVER BASIN--Continued					
		Swatara Creek basin					
01572900	Reeds Creek near Ono, Pa.	Lat 40°24'25", long 76°33'15", Lebanon County, at concrete culvert on U.S. Highway 22, 1 mile west of Ono, and 1.1 miles above mouth. Datum of gage is 367.72 ft NGVD of 1929.	8.63	1962-81	2-11-81	c6.16	820
		Conestoga River basin					
01576320	Stony Run at Reamstown, Pa.	Lat 40°12'44", long 76°07'30", Lancaster County, at single-span bridge, 0.1 mile southeast of U.S. Highway 222, 0.1 mile northwest of Reamstown, and 0.7 mile above mouth.	3.55	1964-81	---	<3.80	<310
		Conowingo Creek basin					
01578200	Conowingo Creek near Buck, Pa.	Lat 39°50'35", long 76°11'45", Lancaster County, at concrete bridge on L.R. 36135, 2 miles above Jackson Run, and 2.5 miles southeast of Buck.	8.71	1963-81	---	<5.10	<254
		POTOMAC RIVER BASIN					
		Wills Creek basin					
01600700	Little Wills Cr at Bard, Pa.	Lat 39°55'35", long 78°39'40", Bedford County, at bridge on State Highway 96 at Bard. Datum of gage is 1,264.2 ft NGVD of 1929.	10.2	1961-81	4-13-81	7.75	446

c Using auxiliary gage.

Discharge measurements made at miscellaneous sites during water year 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN				
		West Branch Susquehanna River basin				
Anderson Creek	West Branch Susquehanna River	Lat 40°58'31", long 78°31'50", Clearfield County, at bridge on Meadow Street in Curwensville and 0.7 mile upstream from mouth.	76.5	1975-80	10-31-80 2-19-81	39 599
Alder Run	West Branch Susquehanna River	Lat 41°00'50", long 78°11'59", Centre County, at bridge on county road, 80 ft downstream from Mons Run, 170 ft downstream from Hubler Run, and 2.2 miles northwest of Kylertown.	-	1975-80	12-08-80	6.7
Driftwood Branch	Bennett Branch Sinnemahoning Creek	Lat 41°20'02", long 78°08'10", Cameron County, at county bridge at Driftwood and 1,000 ft above mouth.	367	1975-80	3-26-81 6-04-81 8-12-81	236 603 93
Cross Fork Creek	Kettle Creek	Lat 41°29'02", long 77°49'14", Potter County, at bridge on State Highway 144, 0.2 mile west of Cross Fork, and 100 ft upstream from mouth.	-	-	2-19-81	503
		Fishing Creek basin				
Fishing Creek	Susquehanna River	Lat 41°02'40", long 76°25'39", Columbia County, 0.30 mile upstream from bridge at Light Street, and 3.1 miles northeast of Bloomsburg.	285	-	9-14-81	b145 b143
Unnamed tributary	Fishing Creek	Lat 41°02'22", long 76°26'16", Columbia County, 1,200 feet upstream from mouth, above highway culvert, near Light Street.	2.22	-	9-14-81	b .30 b .26
Appleman's Run	Fishing Creek	Lat 41°01'55", long 76°25'39", Columbia County, at culvert on Papermill Road, below Light Street.	1.99	1972-74	9-14-81	b .17 b .92
Fishing Creek	Susquehanna River	Lat 41°01'30", long 76°27'12", Columbia County, 1.14 mile upstream from State Highway 42 bridge, below Light Street.	292	-	9-14-81	b146 b156
Unnamed tributary	Fishing Creek	Lat 41°01'33", long 76°28'03", Columbia County, 300 feet upstream from mouth, above highway culvert, near Bloomsburg.	0.77	-	9-14-81	b .03 b .08
Little Fishing Creek	Fishing Creek	Lat 41°01'07", long 76°28'36", Columbia County, at mouth, near Bloomsburg.	68.1	-	9-14-81	b 23.9 b 21.6
Fishing Creek	Susquehanna River	Lat 41°00'17", long 76°27'40", Columbia County, 350 feet downstream from Bloomsburg Water Company intake, and 2.95 miles upstream from mouth, at Bloomsburg.	363	-	9-14-81	b160 b176

b Base flow.

Discharge measurements made at miscellaneous sites during water year 1981--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
SUSQUEHANNA RIVER BASIN						
Mahonoy Creek basin						
Mahanoy Creek	Susquehanna River	Lat 40°43'28", long 76°48'17", Northumberland County, at bridge on county road, 1.8 mi northeast of Herndon, 4.4 mi from mouth.	155	1974-80	3-09-81	262
Juniata River basin						
Three Springs	Aughwick Creek	Lat 40°12'48", long 77°55'34", Huntingdon County, at mouth and 3.5 miles northeast of Three Springs.	31.4	1940-80a	2-24-81	275
Swatara Creek basin						
Swatara Creek	Susquehanna River	Lat 40°34'30", long 76°24'10", Schuylkill County, at bridge on Spittler Road and 0.1 mi east of Ravine.	44.6	1974-80	11-19-80 9-21-81	b 10 b 14

a Most years during period.
b Base flow.

Water-quality partial-record stations are particular sites where chemical-quality, biological, and/or sediment data collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DISSOLVED (MG/L)
CHEMUNG RIVER BASIN										
01516208 - TIOGA R AT COUNTY BRIDGE, PA (LAT 41 40 41 LONG 076 56 30)										
MAR , 1981										
26...	1545	19	40	7.0	5.5	.1	5.0	20	8.5	28
AUG										
10...	1540	2.9	<50	6.7	24.0	--	--	14	8.1	31
01516250 - TIOGA RIVER ABOVE MORRIS RUN, PA. (LAT 41 39 32 LONG 077 02 53)										
NOV , 1980										
26...	1015	--	--	--	--	.9	45	--	--	--
MAR , 1981										
27...	1110	46	81	5.4	4.0	.5	25	2	33	61
AUG										
10...	1930	8.0	195	4.5	25.0	.8	40	--	71	141
01516255 - MORRIS RN NR MORRIS RUN, PA (LAT 41 40 16 LONG 077 01 25)										
MAR , 1981										
26...	1730	4.4	1720	3.0	9.0	17	844	--	1200	1840
JUL										
17...	1125	3.6	2900	2.9	14.0	16	794	--	1600	2540
AUG										
10...	1755	2.4	2600	2.9	20.0	21	1040	--	1400	2410
SEP										
15...	1330	1.5	2620	2.8	13.5	6.0	298	--	1300	2340
01516260 - COAL RUN AT BLOSSBURG, PA (LAT 41 40 17 LONG 077 03 41)										
MAR , 1981										
27...	1150	3.6	1700	2.8	8.0	2.0	99	--	910	1440
JUL										
17...	1300	2.5	2200	3.0	13.5	12	596	--	820	1460
AUG										
11...	0900	2.2	2240	2.9	13.0	18	894	--	1100	1860
SEP										
15...	1230	1.3	2800	2.6	12.0	15	745	--	1200	2180
01516265 - JOHNSON C AT BLOSSBURG, PA (LAT 41 40 21 LONG 077 04 21)										
MAR , 1981										
27...	1245	13	245	4.8	5.0	.6	30	2	94	154
AUG										
11...	1015	3.2	240	6.9	20.5	--	--	15	--	--
TOWANDA CREEK BASIN										
01531910 - TOWANDA C AT POWELL, PA (LAT 41 42 18 LONG 076 30 32)										
MAR , 1981										
26...	1415	36	172	7.1	9.0	--	--	35	26	108
AUG										
10...	1330	6.8	220	8.0	27.0	--	--	75	20	138
01531916 - SCHRADER C AT POWELL, PA (LAT 41 42 18 LONG 076 30 19)										
MAR , 1981										
26...	1325	48	53	6.8	8.0	.1	5.0	4	15	36
AUG										
10...	1420	9.7	70	7.4	27.0	--	--	8	23	50
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01540590 - LESLE RN NR CARROLLTOWN, PA (LAT 40 36 22 LONG 078 45 10)										
MAR , 1981										
31...	1035	9.5	975	5.9	11.5	.3	15	5	400	647
AUG										
11...	1135	2.0	1700	3.7	22.5	2.3	114	--	880	1260

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
CHEMUNG RIVER BASIN										
01516208 - TIOGA R AT COUNTY BRIDGE, PA (LAT 41 40 41 LONG 076 56 30)										
MAR , 1981										
26...	.04	1.4	110	80	30	70	10	60	2	.10
AUG										
10...	.04	.24	170	--	<10	20	10	10	3	.02
01516250 - TIOGA RIVER ABOVE MORRIS RUN, PA. (LAT 41 39 32 LONG 077 02 53)										
NOV , 1980										
26...	--	--	--	--	--	--	--	--	--	--
MAR , 1981										
27...	.08	7.5	330	190	140	850	0	900	3	.37
AUG										
10...	.19	3.0	890	210	50	2400	0	2500	1	.02
01516255 - MORRIS RN NR MORRIS RUN, PA (LAT 41 40 16 LONG 077 01 25)										
MAR , 1981										
26...	2.5	21.9	33000	0	35000	46000	0	50000	21	.25
JUL										
17...	3.4	24.7	41000	0	43000	77000	2000	75000	28	.27
AUG										
10...	3.2	15.6	36000	0	37000	72000	0	75000	18	.12
SEP										
15...	3.1	9.9	41000	1000	40000	70000	0	70000	56	.24
01516260 - COAL RUN AT BLOSSBURG, PA (LAT 41 40 17 LONG 077 03 41)										
MAR , 1981										
27...	1.9	14.0	51000	0	53000	14000	14000	150	46	.45
JUL										
17...	1.9	10.2	67000	0	68000	17000	0	17000	27	.19
AUG										
11...	2.5	11.1	69000	0	71000	17000	0	20000	31	.19
SEP										
15...	2.9	8.1	92000	0	92000	22000	0	22000	1	.00
01516265 - JOHNSON C AT BLOSSBURG, PA (LAT 41 40 21 LONG 077 04 21)										
MAR , 1981										
27...	.21	5.4	2000	1600	380	2600	2600	10	4	.14
AUG										
11...	--	--	--	--	--	--	--	--	1	.01
TOWANDA CREEK BASIN										
01531910 - TOWANDA C AT POWELL, PA (LAT 41 42 18 LONG 076 30 32)										
MAR , 1981										
26...	.15	10.5	100	100	0	10	0	10	5	.49
AUG										
10...	.19	2.5	110	100	10	20	10	10	2	.04
01531916 - SCHRADER C AT POWELL, PA (LAT 41 42 18 LONG 076 30 19)										
MAR , 1981										
26...	.05	4.6	150	150	0	140	0	140	2	.26
AUG										
10...	.07	1.3	180	170	10	10	0	10	1	.03
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01540590 - LESLE RN NR CARROLLTOWN, PA (LAT 40 36 22 LONG 078 45 10)										
MAR , 1981										
31...	.88	16.6	3600	300	3300	550	490	60	30	.77
AUG										
11...	1.7	6.9	8600	4900	3700	1500	0	1600	14	.08

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01540592 - W BR SUSQUEHANNA R NR SPANGLER, PA (LAT 40 37 42 LONG 078 45 56)										
MAR , 1981										
31...	0903	20	850	4.4	9.5	1.7	84	--	380	625
AUG										
11...	0945	4.9	1600	3.2	19.5	6.0	298	--	840	1220
01540595 - FOX RN AT SPANGLER, PA (LAT 40 38 19 LONG 078 46 04)										
MAR , 1981										
31...	0742	12	430	4.8	7.5	.5	25	1	180	278
AUG										
11...	0810	2.1	894	3.1	16.0	1.9	94	--	80	630
01540640 - W BR SUSQUEHANNA R AT CHERRY TREE, PA (LAT 40 42 26 LONG 078 48 10)										
MAR , 1981										
25...	1310	81	622	7.3	7.0	--	--	59	240	389
JUL										
14...	1530	28	940	7.0	23.5	--	--	24	420	720
AUG										
11...	1015	35	895	7.1	19.0	--	--	114	320	633
SEP										
15...	1430	25	900	5.8	19.0	.3	15	6	470	751
01540710 - CUSH C NR GLEN CAMPBELL, PA (LAT 40 49 51 LONG 078 47 27)										
MAR , 1981										
25...	1145	36	314	6.8	4.5	.3	15	14	110	199
AUG										
11...	0845	9.7	387	6.2	18.0	--	--	33	150	291
01540715 - CHEST C AT PATTON, PA (LAT 40 38 02 LONG 078 38 50)										
MAR , 1981										
25...	1620	66	192	6.9	5.0	--	--	25	45	118
AUG										
10...	1430	7.1	354	7.1	24.5	--	--	56	91	237
01540720 - BRUBAKER RN NR HASTINGS, PA (LAT 40 42 15 LONG 078 41 35)										
MAR , 1981										
25...	1520	12	505	7.2	5.5	--	--	30	190	321
AUG										
10...	1545	3.1	775	6.4	21.0	--	--	34	310	587
01540723 - L BRUBAKER RN NR HASTINGS, PA (LAT 40 42 21 LONG 078 41 42)										
MAR , 1981										
25...	1440	5.3	679	6.9	8.0	--	--	31	530	476
AUG										
10...	1715	3.8	870	6.5	22.0	.6	30	37	380	658
01540753 - S BR BEAR RN AT MCGEES MILLS, PA (LAT 40 53 01 LONG 078 45 56)										
MAR , 1981										
25...	0840	29	300	4.6	2.0	--	--	--	87	177
JUL										
14...	1410	6.0	575	4.2	23.0	1.1	55	--	220	334
AUG										
11...	0730	8.0	452	3.2	18.0	1.1	55	--	190	307
SEP										
15...	1315	68	255	4.2	18.0	.3	15	--	74	143
01540800 - WILSON RUN AT NEWBURG, PA. (LAT 40 50 05 LONG 078 40 40)										
MAR , 1981										
25...	1050	11	232	7.1	3.0	--	--	16	78	148
AUG										
11...	1310	4.2	318	6.7	20.5	--	--	30	120	219

BEST DOCUMENT AVAILABLE

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01540592 - W BR SUSQUEHANNA R NR SPANGLER, PA (LAT 40 37 42 LONG 078 45 56)										
MAR , 1981 31...	.85	33.7	7500	1100	6400	1000	0	1000	30	1.6
AUG 11...	1.6	16.1	19000	7000	12000	2200	0	2300	44	.58
01540595 - FOX RN AT SPANGLER, PA (LAT 40 38 19 LONG 078 46 04)										
MAR , 1981 31...	.38	9.0	3700	400	3300	510	0	570	17	.55
AUG 11...	.86	3.5	6200	2500	3700	1600	0	1700	10	.06
01540640 - W BR SUSQUEHANNA R AT CHERRY TREE, PA (LAT 40 42 26 LONG 078 48 10)										
MAR , 1981 25...	.53	85.7	3100	1600	1300	740	190	550	40	8.8
JUL 14...	.98	54.4	3000	2700	310	1200	100	1100	72	5.4
AUG 11...	.86	60.2	1600	1600	20	850	0	860	27	2.6
SEP 15...	1.0	50.7	2600	2300	290	1600	0	1700	29	2.0
01540710 - CUSH C NR GLEN CAMPBELL, PA (LAT 40 49 51 LONG 078 47 27)										
MAR , 1981 25...	.27	19.5	870	650	220	970	210	760	12	1.2
AUG 11...	.40	7.6	1700	1600	140	870	0	900	5	.13
01540715 - CHEST C AT PATTON, PA (LAT 40 38 02 LONG 078 38 50)										
MAR , 1981 25...	.16	21.3	830	590	240	190	70	120	8	1.4
AUG 10...	.32	4.5	1200	1200	40	230	0	240	5	.10
015407[illegible] - BRUBAKER RN NR HASTINGS, PA (LAT 40 42 15 LONG 078 41 35)										
MAR , 1981 25...	.44	10.4	810	580	230	750	20	730	10	.32
AUG 10...	.80	4.9	1500	1500	30	970	30	940	24	.20
01540723 - L BRUBAKER RN NR HASTINGS, PA (LAT 40 42 21 LONG 078 41 42)										
MAR , 1981 25...	.65	6.9	5300	2000	3300	1400	0	1400	34	.49
AUG 10...	.89	6.8	10000	7800	2200	2100	0	2100	34	.36
01540753 - S BR BEAR RN AT MCGEES MILLS, PA (LAT 40 53 01 LONG 078 45 56)										
MAR , 1981 25...	.24	14.2	2800	100	2700	1800	0	1900	6	.48
JUL 14...	.45	5.4	2700	600	2100	6100	1300	4800	2	.03
AUG 11...	.42	6.6	2800	500	2300	3700	0	3900	5	.11
SEP 15...	.19	26.3	7200	6000	1200	1500	0	1500	220	40
01540800 - WILSON RUN AT NEWBURG, PA. (LAT 40 50 05 LONG 078 40 40)										
MAR , 1981 25...	.20	4.6	250	200	50	370	100	270	6	.19
AUG 11...	.30	2.5	390	350	40	130	0	140	3	.03

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01540823 - CHEST C AT MAHAFFEY, PA (LAT 40 52 06 LONG 078 43 14)										
MAR , 1981 25...	1000	196	304	7.5	4.0	--	--	21	91	194
AUG 11...	1145	46	512	6.8	23.0	--	--	36	190	471
01541100 - BELL RN AT BELLS LANDING, PA (LAT 40 55 00 LONG 078 38 00)										
MAR , 1981 24...	1030	16	300	6.4	2.0	.2	10	10	110	201
AUG 11...	1150	5.8	39	7.5	17.0	--	--	17	170	265
01541207 - ANDERSON C NR PENFIELD, PA (LAT 41 07 51 LONG 078 36 14)										
MAR , 1981 23...	1545	3.9	60	7.2	5.0	.1	5.0	6	12	41
AUG 10...	2015	.51	73	7.6	27.0	--	--	18	8.3	69
01541220 - L ANDERSON C NR ROCKTON, PA (LAT 41 03 11 LONG 078 39 24)										
MAR , 1981 23...	1655	9.1	690	3.4	4.0	2.0	99	--	270	394
JUL 14...	1215	4.1	1050	3.3	18.5	3.6	179	--	420	724
AUG 11...	0900	1.9	>1000	3.1	17.0	3.9	194	--	400	788
SEP 15...	1140	9.2	810	3.2	17.0	1.8	89	--	320	544
01541245 - KRATZER RN AT BRIDGEPORT, PA (LAT 40 58 30 LONG 078 33 06)										
MAR , 1981 24...	1150	12	250	5.4	3.0	.2	10	4	84	157
AUG 11...	1510	4.0	300	6.1	20.0	.3	15	7	100	216
01541248 - ANDERSON C AT CURWENSVILLE, PA (LAT 40 58 31 LONG 078 31 50)										
MAR , 1981 24...	1145	86	230	3.9	5.0	.5	25	--	72	129
AUG 11...	1700	--	285	4.2	24.0	.7	35	--	67	196
01541305 - MOOSE C AT CLEARFIELD, PA (LAT 41 02 10 LONG 078 26 56)										
MAR , 1981 24...	0815	11	332	4.7	2.5	.5	25	2	160	214
AUG 13...	0650	2.6	740	3.7	15.5	1.5	74	--	330	534
01541320 - CLEARFIELD C AT ASHVILLE, PA (LAT 40 33 40 LONG 078 33 05)										
APR , 1981 03...	0735	96	210	6.2	6.5	.2	10	4	64	126
AUG 13...	0905	11	435	5.3	15.0	.2	10	8	180	328
01541322 - CLEARFIELD C AT FRUGALITY, PA (LAT 40 39 13 LONG 078 29 47)										
MAR , 1981 27...	1310	201	232	5.9	5.0	.2	10	2	81	156
AUG 17...	1715	21	440	4.2	23.0	--	--	--	190	302

ANALYSIS OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01540823 - CHEST C AT MAHAFFEY, PA (LAT 40 52 06 LONG 078 43 14)										
MAR , 1981										
25...	.26	103	590	540	50	610	160	450	10	5.3
AUG										
11...	.64	59.5	690	660	30	300	20	280	8	1.0
01541100 - BELL RN AT BELLS LANDING, PA (LAT 40 55 00 LONG 078 38 00)										
MAR , 1981										
24...	.27	9.0	560	200	360	930	0	1100	14	.63
AUG										
11...	.36	4.1	360	330	30	710	0	730	29	.45
01541207 - ANDERSON C NR PENFIELD, PA (LAT 41 07 51 LONG 078 36 14)										
MAR , 1981										
23...	.06	.44	460	360	100	130	0	130	18	.19
AUG										
10...	.09	.10	2500	1200	1300	250	30	220	87	.12
01541220 - L ANDERSON C NR ROCKTON, PA (LAT 41 03 11 LONG 078 39 24)										
MAR , 1981										
23...	.54	9.7	10000	0	11000	7500	100	7400	22	.54
JUL										
14...	.98	8.0	14000	1000	13000	13000	0	15000	17	.19
AUG										
11...	1.0	4.0	22000	0	23000	15000	0	17000	42	.22
SEP										
15...	.74	13.5	13000	3000	10000	11000	0	12000	43	1.1
01541245 - KRATZER RN AT BRIDGEPORT, PA (LAT 40 58 30 LONG 078 33 08)										
MAR , 1981										
24...	.21	5.3	430	120	310	1100	0	1300	17	.58
AUG										
11...	.29	2.3	630	510	120	1200	0	1300	26	.28
01541248 - ANDERSON C AT CURWENSVILLE, PA (LAT 40 58 31 LONG 078 31 50)										
MAR , 1981										
24...	.18	30.0	920	40	880	1500	0	1500	12	2.8
AUG										
11...	.27	--	320	140	180	2500	0	2800	3	--
01541305 - MOOSE C AT CLEARFIELD, PA (LAT 41 02 10 LONG 078 26 56)										
MAR , 1981										
24...	.29	6.4	740	540	200	3200	0	3400	3	.09
AUG										
13...	.73	3.7	710	160	550	12000	0	13000	3	.02
01541320 - CLEARFIELD C AT ASHVILLE, PA (LAT 40 33 40 LONG 078 33 05)										
APR , 1981										
03...	.17	32.7	1000	960	40	180	0	180	16	4.1
AUG										
13...	.45	10.1	550	510	40	360	10	350	5	.15
01541322 - CLEARFIELD C AT FRUGALITY, PA (LAT 40 39 13 LONG 078 29 47)										
MAR , 1981										
27...	.21	84.7	1600	1300	300	680	0	900	39	21
AUG										
17...	.41	17.8	1300	820	480	3200	0	3500	96	5.7

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01541323 - SANDY RN AT VAN ORMER, PA (LAT 40 40 00 LONG 078 29 37)										
MAR , 1981										
27...	1300	4.5	73	7.0	6.0	--	--	6	24	54
AUG										
17...	1600	.08	175	7.8	17.5	--	--	21	59	124
01541324 - POWELL RN AT VAN ORMER, PA (LAT 40 40 19 LONG 078 29 34)										
MAR , 1981										
27...	1100	12	360	3.8	5.0	.8	40	--	130	222
AUG										
17...	1445	2.4	580	3.5	15.0	1.6	79	--	220	389
01541335 - SLATE LICK RUN NR FRUGALITY, PA. (LAT 40 38 16 LONG 078 32 15)										
MAR , 1981										
25...	1730	5.6	150	7.2	4.5	--	--	29	22	93
AUG										
10...	1230	.69	237	6.9	21.5	--	--	90	17	141
01541361 - BLAIN RN AT COALPORT, PA (LAT 40 44 35 LONG 078 32 02)										
MAR , 1981										
27...	1155	3.0	262	6.9	5.5	--	--	25	74	160
AUG										
11...	1450	.19	675	6.1	21.5	.5	25	9	290	484
01541362 - N WITMER RN AT IRVONA, PA (LAT 40 46 20 LONG 078 33 20)										
MAR , 1981										
27...	1050	41	156	7.8	5.5	--	--	14	39	99
AUG										
11...	1545	6.4	248	6.8	22.0	--	--	--	73	147
01541368 - PINE RN NR IRVONA, PA (LAT 40 46 27 LONG 075 31 29)										
JUL , 1981										
14...	1820	2.2	1260	4.0	17.0	1.8	89	--	610	975
01541372 - DOTTS HOLLOW NR IRVONA, PA (LAT 40 47 17 LONG 078 31 32)										
MAR , 1981										
27...	0935	3.3	410	6.5	4.5	.2	10	19	170	275
AUG										
11...	1650	.71	605	6.7	20.5	--	--	30	220	440
01541410 - CLEARFIELD C NR MADERA, PA (LAT 40 48 30 LONG 078 28 14)										
MAR , 1981										
26...	1710	204	275	7.0	7.0	--	--	7	100	178
AUG										
12...	1000	54	426	6.8	22.0	--	--	6	200	307
01541414 - SHOFF MINE AT MADERA, PA (LAT 40 49 30 LONG 078 26 59)										
MAR , 1981										
27...	0810	.31	--	2.6	11.0	36	1790	--	2000	3210
AUG										
12...	0730	.18	>1000	2.3	15.0	47	2330	--	1900	4180
01541418 - L MUDDY RN AT SMOKE RUN, PA (LAT 40 47 32 LONG 078 25 42)										
MAR , 1981										
26...	1510	19	652	4.7	10.0	.9	45	2	330	466
AUG										
12...	1130	20	750	5.8	18.5	.6	30	11	340	584

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01541323 - SANDY RN AT VAN ORMER, PA (LAT 40 40 00 LONG 078 29 37)										
MAR , 1981										
27...	.07	.66	160	130	30	10	0	20	12	.15
AUG										
17...	.17	.03	130	110	20	20	0	30	4	.00
01541324 - POWELL RN AT VAN ORMER, PA (LAT 40 40 19 LONG 078 29 34)										
MAR , 1981										
27...	.30	7.3	1100	170	930	1500	0	1500	10	.33
AUG										
17...	.53	2.5	1100	990	110	2700	0	2900	2	.01
01541335 - SLATE LICK RUN NR FRUGALITY, PA. (LAT 40 38 16 LONG 078 32 15)										
MAR , 1981										
25...	.13	1.4	490	440	50	90	40	50	4	.06
AUG										
10...	.19	.26	1900	1800	110	310	40	270	35	.07
01541361 - BLAIN RN AT COALPORT, PA (LAT 40 44 35 LONG 078 32 02)										
MAR , 1981										
27...	.22	1.3	1100	610	490	270	70	200	11	.09
AUG										
11...	.66	.25	3400	700	2700	900	0	1000	6	.00
01541362 - N WITMER RN AT IRVONA, PA (LAT 40 46 20 LONG 078 33 20)										
MAR , 1981										
27...	.13	11.0	770	750	20	160	70	90	18	2.0
AUG										
11...	.20	2.5	450	360	90	30	0	40	3	.05
01541368 - PINE RN NR IRVONA, PA (LAT 40 46 27 LONG 075 31 29)										
JUL , 1981										
14...	1.3	5.7	16000	4000	12000	7200	1100	6100	18	.11
01541372 - DOTTS HOLLOW NR IRVONA, PA (LAT 40 47 17 LONG 078 31 32)										
MAR , 1981										
27...	.37	2.4	500	460	40	180	80	100	6	.05
AUG										
11...	.60	.84	1600	1500	130	1400	1300	130	11	.02
01541410 - CLEARFIELD C NR MADERA, PA (LAT 40 48 30 LONG 078 28 14)										
MAR , 1981										
26...	.24	98.0	1200	730	470	980	220	760	11	6.1
AUG										
12...	.42	45.2	620	250	370	1800	0	2000	1	.15
01541414 - SHOFF MINE AT MADERA, PA (LAT 40 49 30 LONG 078 26 59)										
MAR , 1981										
27...	4.3	2.6	510000	30000	480000	6500	0	7300	142	.12
AUG										
12...	5.6	2.0	970000	70000	900000	8100	0	8700	342	.17
01541418 - L MUDDY RN AT SMOKE RUN, PA (LAT 40 47 32 LONG 078 25 42)										
MAR , 1981										
26...	.63	24.3	2600	1900	660	3400	0	3600	11	.57
AUG										
12...	.79	32.6	2400	1700	670	3800	0	3800	20	1.1

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01541420 - MUDDY RN AT MADERA, PA (LAT 40 49 11 LONG 078 26 15)										
MAR , 1981										
26...	1335	48	556	5.8	7.0	.3	15	3	260	393
AUG										
12...	1240	22	720	6.0	18.5	.5	25	--	310	541
01541425 - JAPLING RN AT MADERA, PA (LAT 40 49 45 LONG 078 26 10)										
MAR , 1981										
26...	1205	2.6	--	2.9	12.5	8.1	402	--	880	1260
JUL										
15...	1015	2.2	1870	3.1	15.5	11	546	--	850	1510
AUG										
12...	1330	1.6	>1000	2.8	19.5	11	546	--	1300	1530
SEP										
15...	1800	1.3	1540	3.0	14.0	7.0	348	--	960	1480
01541430 - PINE RUN NR MADERA, PA (LAT 40 51 04 LONG 078 26 50)										
MAR , 1981										
26...	1045	3.3	471	3.3	3.5	1.5	74	--	160	221
AUG										
12...	1450	.90	905	2.9	21.0	2.9	144	--	260	498
01541435 - LOST RN AT MADERA, PA (LAT 40 51 37 LONG 078 26 43)										
MAR , 1981										
26...	0930	2.0	--	3.2	2.0	3.6	179	--	730	1060
JUL										
15...	0920	.75	2200	3.2	15.0	7.1	353	--	1100	1860
AUG										
12...	1545	.81	>1000	2.9	20.0	6.6	328	--	1500	1720
SEP										
15...	1700	1.4	1700	3.1	17.0	3.6	179	--	890	1720
01541475 - POTTS RN AT KELLYTOWN, PA (LAT 40 52 54 LONG 078 27 38)										
MAR , 1981										
26...	0820	11	351	4.3	1.5	.7	35	--	150	235
AUG										
12...	1635	4.9	420	5.0	21.0	.4	20	--	180	311
01541480 - MORGAN RN NR MINERAL SPRINGS, PA (LAT 40 57 27 LONG 078 22 28)										
MAR , 1981										
24...	1400	14	350	3.9	4.5	.9	45	--	130	193
AUG										
12...	1845	3.4	675	3.3	19.0	2.0	99	--	280	400
01541485 - L CLEARFIELD C NR GLEN RICHEY, PA (LAT 40 55 51 LONG 075 27 53)										
MAR , 1981										
24...	1715	33	304	7.6	4.0	--	--	32	96	176
AUG										
12...	1730	13	403	7.1	22.5	--	--	56	120	275
01541513 - LONG RN AT MOUNT HOPE, PA (LAT 40 59 34 LONG 078 24 22)										
MAR , 1981										
24...	1545	2.7	720	4.2	3.5	.8	40	--	380	557
AUG										
13...	1020	1.2	1000	4.4	16.5	1.2	60	--	450	816

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01541420 - MUDDY RN AT MADERA, PA (LAT 40 49 11 LONG 078 26 15)										
MAR , 1981 26...	.53	51.0	2500	2400	140	2800	0	2800	21	2.7
AUG 12...	.74	32.6	1500	930	570	2600	0	3600	19	1.1
01541425 - JAPLING RN AT MADERA, PA (LAT 40 49 45 LONG 078 26 10)										
MAR , 1981 26...	1.7	9.1	130000	50000	80000	8000	0	8300	83	.60
JUL 15...	2.0	8.9	110000	0	110000	9300	400	8900	101	.60
AUG 12...	2.0	6.7	130000	20000	110000	8600	0	8900	113	.50
SEP 15...	2.0	5.1	110000	0	110000	8600	0	8700	113	.40
01541430 - PINE RUN NR MADERA, PA (LAT 40 51 04 LONG 078 26 50)										
MAR , 1981 26...	.30	1.9	7600	100	7500	1700	0	2000	9	.08
AUG 12...	.68	1.2	11000	1200	9800	3900	100	3800	9	.02
01541435 - LOST RN AT MADERA, PA (LAT 40 51 37 LONG 078 26 43)										
MAR , 1981 26...	1.4	5.7	10000	0	10000	19000	0	21000	9	.05
JUL 15...	2.5	3.7	11000	0	11000	36000	0	37000	6	.01
AUG 12...	2.3	3.7	12000	0	12000	35000	0	35000	2	.00
SEP 15...	2.3	6.5	12000	0	12000	34000	0	36000	3	.01
01541475 - POTTS RN AT KELLYTOWN, PA (LAT 40 52 54 LONG 078 27 38)										
MAR , 1981 26...	.32	7.4	1400	940	460	1900	0	2100	8	.25
AUG 12...	.42	4.1	1500	1300	220	2300	0	2400	9	.12
01541480 - MORGAN RN NR MINERAL SPRINGS, PA (LAT 40 57 27 LONG 078 22 28)										
MAR , 1981 24...	.26	7.3	850	0	850	4100	0	4100	1	.04
AUG 12...	.54	3.6	1200	210	990	12000	0	12000	1	.01
01541485 - L CLEARFIELD C NR GLEN RICHEY, PA (LAT 40 55 51 LONG 075 27 53)										
MAR , 1981 24...	.24	16.1	460	350	110	150	40	110	2	.18
AUG 12...	.37	10.2	990	940	50	80	20	60	9	.33
01541513 - LONG RN AT MOUNT HOPE, PA (LAT 40 59 34 LONG 078 24 22)										
MAR , 1981 24...	.76	4.1	270	80	190	6400	100	6300	1	.01
AUG 13...	1.1	2.8	520	250	270	13000	1000	12000	2	.01

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01541520 - ROARING RN AT MINERAL SPRINGS, PA (LAT 40 59 48 LONG 078 21 40)										
MAR , 1981 24...	1215	8.0	893	3.8	4.5	1.6	79	--	440	661
JUL 15...	1450	3.5	2000	3.2	22.0	6.0	298	--	850	1530
AUG 13...	1125	3.8	>1000	5.2	19.0	2.8	139	12	790	1390
SEP 16...	1015	3.0	1400	3.2	15.0	2.3	114	--	810	1180
01541550 - CLEARFIELD CR AT CLEARFIELD, PA. (LAT 41 01 04 LONG 078 24 28)										
MAR , 1981 24...	1040	441	372	5.0	5.0	.3	15	1	150	240
AUG 13...	0800	--	642	4.0	18.5	.7	35	--	290	459
01541695 - TROUT RN AT SHAWVILLE, PA (LAT 41 04 25 LONG 078 21 43)										
MAR , 1981 24...	1550	28	55	5.4	5.0	.1	5.0	2	18	40
AUG 11...	1830	12	68	5.4	21.0	.3	15	3	25	62
01541710 - MILLSTONE RN NR SHAWVILLE, PA (LAT 41 03 02 LONG 078 20 21)										
MAR , 1981 24...	1430	4.4	>1000	3.6	2.5	1.7	84	--	390	592
AUG 12...	0800	2.8	>1000	3.0	17.0	3.3	164	--	600	1050
01541720 - SURVEYOR RN AT SURVEYOR, PA (LAT 41 04 26 LONG 078 19 39)										
MAR , 1981 24...	1730	4.7	>1000	3.6	5.0	1.9	94	--	540	794
JUL 15...	1630	3.0	1350	3.7	20.0	3.0	149	--	680	1050
AUG 12...	1015	2.1	>1000	3.1	17.5	3.9	194	--	690	1130
SEP 16...	1300	2.2	1190	3.4	18.0	1.9	94	--	750	1110
01541750 - DEER C NR FRENCHVILLE, PA (LAT 41 04 42 LONG 078 14 11)										
MAR , 1981 24...	1840	20	640	4.0	4.0	1.0	50	--	320	458
AUG 12...	1130	9.9	900	3.2	18.0	2.0	99	--	400	679
01541900 - ROLLING STONE RN NR ROLLING STONE, PA (LAT 41 03 25 LONG 078 09 36)										
MAR , 1981 26...	0900	1.3	>1000	3.1	1.0	6.1	303	--	670	1020
JUL 15...	1800	--	--	--	--	--	--	--	--	1260
AUG 12...	1345	1.1	>1000	2.5	20.0	6.9	343	--	770	1320
SEP 16...	1410	1.1	1330	2.9	17.0	3.7	184	--	740	1140
01541950 - MOWRY RN AT ROLLING STONE, PA (LAT 41 03 23 LONG 078 09 19)										
MAR , 1981 26...	1010	.11	350	4.2	2.0	4.2	209	--	130	222
AUG 12...	1500	.11	540	4.0	19.5	1.6	79	--	210	386

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01541520 - ROARING RN AT MINERAL SPRINGS, PA (LAT 40 59 48 LONG 078 21 40)										
MAR , 1981										
24...	.90	14.3	5200	400	4800	12000	0	13000	10	.22
JUL										
15...	2.0	14.5	15000	4000	11000	34000	0	38000	27	.26
AUG										
13...	1.8	14.4	14000	1000	13000	31000	0	32000	15	.16
SEP										
16...	1.6	9.5	8000	400	7600	25000	0	26000	5	.04
01541550 - CLEARFIELD CR AT CLEARFIELD, PA. (LAT 41 01 04 LONG 078 24 28)										
MAR , 1981										
24...	.33	286	2300	1000	1300	2700	400	2300	10	12
AUG										
13...	.62	--	930	620	310	5200	0	5300	3	--
01541695 - TROUT RN AT SHAWVILLE, PA (LAT 41 04 25 LONG 078 21 43)										
MAR , 1981										
24...	.05	3.0	100	70	30	60	0	70	13	.99
AUG										
11...	.08	2.0	800	780	20	230	140	90	10	.33
01541710 - MILLSTONE RN NR SHAWVILLE, PA (LAT 41 03 02 LONG 078 20 21)										
MAR , 1981										
24...	.81	7.1	2700	0	3000	6800	0	7500	12	.15
AUG										
12...	1.4	8.0	2100	400	1700	15000	0	17000	1	.01
01541720 - SURVEYOR RN AT SURVEYOR, PA (LAT 41 04 26 LONG 078 19 39)										
MAR , 1981										
24...	1.0	10.1	4400	0	4900	11000	0	13000	12	.15
JUL										
15...	1.4	8.5	30000	27000	3000	16000	0	17000	2	.02
AUG										
12...	1.5	6.4	4500	100	4400	17000	0	18000	8	.05
SEP										
16...	1.5	6.5	5400	400	5000	19000	0	20000	3	.02
01541750 - DEER C NR FRENCHVILLE, PA (LAT 41 04 42 LONG 078 14 11)										
MAR , 1981										
24...	.62	25.7	2800	0	2900	7600	0	7800	11	.62
AUG										
12...	.92	18.2	2100	0	2200	11000	1400	9600	4	.11
01541900 - ROLLING STONE RN NR ROLLING STONE, PA (LAT 41 03 25 LONG 078 09 36)										
MAR , 1981										
26...	1.3	3.7	--	--	17000	--	--	18000	8	.03
JUL										
15...	1.7	--	--	--	--	--	--	--	9	--
AUG										
12...	1.8	3.9	14000	0	14000	22000	0	23000	2	.01
SEP										
16...	1.5	3.3	15000	0	15000	20000	0	22000	1	.00
01541950 - MOWRY RN AT ROLLING STONE, PA (LAT 41 03 23 LONG 078 09 19)										
MAR , 1981										
26...	.30	.07	220	70	150	4000	0	4100	12	.00
AUG										
12...	.52	.11	450	150	300	6800	0	7100	4	.00

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01542004 - TROUT RN AT EDENDALE, PA (LAT 40 50 12 LONG 078 16 06)										
MAR , 1981										
25...	1700	10	240	3.8	7.0	.7	35	--	72	120
AUG										
17...	1500	3.9	258	3.7	15.5	1.4	70	--	93	167
01542006 - COLD STREAM ABOVE GLASS CITY, PA (LAT 40 52 04 LONG 078 12 26)										
MAR , 1981										
25...	1550	9.2	46	6.6	8.0	.1	5.0	6	8.1	29
AUG										
14...	1245	13	42	7.7	14.5	--	--	11	9.9	39
01542008 - COLD STREAM AT PHILIPSBURG, PA (LAT 40 54 11 LONG 078 12 39)										
MAR , 1981										
25...	1330	20	132	4.4	6.5	.4	20	--	40	74
AUG										
14...	1100	8.0	320	3.7	17.0	1.6	79	--	99	180
01542100 - EMIGH RN AT HAWK RUN, PA (LAT 40 55 17 LONG 078 12 38)										
MAR , 1981										
25...	1210	3.3	470	4.9	4.0	.8	40	2	220	334
AUG										
13...	1845	.65	550	5.5	20.0	.7	35	6	230	404
01542105 - ONEMILE RN NR PHILIPSBURG, PA (LAT 40 54 49 LONG 078 12 02)										
MAR , 1981										
25...	1430	1.6	>1000	2.9	7.0	8.1	402	--	800	1100
JUL										
15...	1220	1.0	1360	3.0	24.0	7.5	372	--	470	761
AUG										
14...	0945	.73	>1000	3.0	19.0	6.7	333	--	470	749
SEP										
16...	0800	1.1	1110	3.0	14.5	4.7	233	--	96	706
01542108 - HAWK RN NR HAWK RUN, PA (LAT 40 55 18 LONG 078 11 33)										
MAR , 1981										
25...	1115	6.7	>1000	3.6	9.0	2.6	129	--	660	984
AUG										
14...	0800	1.8	899	3.6	13.5	2.8	139	--	430	690
01542200 - UNNAMED TRIB TO MOSHANNON C AT MUNSON, PA (LAT 40 57 14 LONG 078 10 25)										
MAR , 1981										
25...	1015	.39	>1100	3.3	5.0	3.5	174	--	490	728
AUG										
13...	1730	.24	>1000	2.8	20.0	8.1	402	--	670	1070
01542204 - BLACK BEAR RN NR WINBURNE, PA (LAT 40 56 40 LONG 078 08 10)										
MAR , 1981										
25...	0915	9.9	45	7.0	3.5	--	--	4	14	24
AUG										
13...	1615	6.1	40	8.0	15.0	--	--	17	7.6	40
01542207 - SULPHUR RN NR WINBURNE, PA (LAT 40 57 39 LONG 078 08 33)										
MAR , 1981										
25...	0815	9.2	>1000	2.9	8.0	9.8	487	--	890	1260
JUL										
15...	1330	8.9	1800	2.8	16.0	10	497	--	750	1190
AUG										
13...	1500	5.3	>1000	2.7	16.5	4.2	209	--	810	1310
SEP										
16...	0910	4.0	1670	2.8	11.5	8.0	397	--	840	1350

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01542004 - TROUT RN AT EDENDALE, PA (LAT 40 50 12 LONG 078 16 06)										
MAR , 1981										
25...	.16	3.4	2100	400	1700	1100	0	1100	12	.34
AUG										
17...	.23	1.7	2200	600	1600	1500	0	1800	5	.05
01542006 - COLD STREAM ABOVE GLASS CITY, PA (LAT 40 52 04 LONG 078 12 26)										
MAR , 1981										
25...	.04	.73	250	200	50	40	20	20	12	.30
AUG										
14...	.05	1.4	260	210	50	40	10	30	2	.07
01542008 - COLD STREAM AT PHILIPSBURG, PA (LAT 40 54 11 LONG 078 12 39)										
MAR , 1981										
25...	.10	4.1	2900	1200	1700	690	0	750	16	.90
AUG										
14...	.24	3.9	7500	2500	5000	1600	0	2000	23	.50
01542100 - EMIGH RN AT HAWK RUN, PA (LAT 40 55 17 LONG 078 12 38)										
MAR , 1981										
25...	.45	3.0	450	190	260	3500	0	3500	17	.15
AUG										
13...	.55	.71	190	70	120	4300	0	4600	1	.00
01542105 - ONEMILE RN NR PHILIPSBURG, PA (LAT 40 54 49 LONG 078 12 02)										
MAR , 1981										
25...	1.5	5.0	54000	0	60000	6100	0	6400	32	.15
JUL										
15...	1.0	2.0	29000	0	29000	6900	1100	5800	15	.04
AUG										
14...	1.0	1.4	23000	0	24000	6000	0	6300	11	.02
SEP										
16...	.96	2.1	32000	0	32000	7900	200	7700	20	.06
01542108 - HAWK RN NR HAWK RUN, PA (LAT 40 55 18 LONG 078 11 33)										
MAR , 1981										
25...	1.3	17.9	20000	0	21000	11000	0	12000	47	.86
AUG										
14...	.94	3.3	18000	1000	17000	2800	0	3000	30	.15
01542200 - UNNAMED TRIB TO MOSHANNON C AT MUNSON, PA (LAT 40 57 14 LONG 078 10 25)										
MAR , 1981										
25...	.99	.77	33000	0	35000	3600	0	3700	28	.03
AUG										
13...	1.4	.69	60000	0	63000	5800	0	6300	60	.04
01542204 - BLACK BEAR RN NR WINBURNE, PA (LAT 40 56 40 LONG 078 08 10)										
MAR , 1981										
25...	.03	.64	90	0	90	90	60	30	10	.27
AUG										
13...	.05	.66	130	0	160	20	0	20	5	.08
01542207 - SULPHUR RN NR WINBURNE, PA (LAT 40 57 39 LONG 078 08 33)										
MAR , 1981										
25...	1.7	31.5	59000	0	75000	4500	0	4800	46	1.2
JUL										
15...	1.6	28.6	55000	0	58000	5500	700	4800	36	.87
AUG										
13...	1.7	19.0	58000	0	59000	5300	0	5700	41	.59
SEP										
16...	1.8	14.6	79000	0	79000	5700	0	5800	49	.53

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01542300 - MOSHANNON C NR MOSHANNON, PA (LAT 41 02 10 LONG 078 03 36)										
MAR , 1981										
26...	1530	272	810	3.2	8.0	2.1	104	--	330	498
AUG										
13...	1300	123	1000	3.0	19.5	2.8	139	--	400	666
01542400 - BLK MOSHANNON C AT MOSHANNON, PA (LAT 41 02 08 LONG 078 03 22)										
MAR , 1981										
26...	1615	58	142	5.1	6.5	.3	15	--	47	80
AUG										
13...	1100	37	132	6.4	17.0	.3	15	4	45	104
01542508 - MOSQUITO C NR KARTHAUS, PA (LAT 41 07 45 LONG 078 07 59)										
MAR , 1981										
26...	1115	50	72	5.2	4.5	.1	5.0	--	24	41
AUG										
12...	1630	23	165	4.5	24.5	.4	20	--	56	116
01542520 - SALTLICK RN NR POTTERSDALE, PA (LAT 41 09 15 LONG 078 06 00)										
MAR , 1981										
26...	1230	.34	>1000	3.2	8.0	9.1	452	--	1600	2550
JUL										
15...	2000	.30	3440	3.4	21.0	18	894	--	2300	3530
AUG										
12...	1800	.12	>1000	2.8	22.0	17	844	--	2400	3800
SEP										
16...	1510	.17	2930	3.0	18.5	10	497	--	2300	3480
01542524 - STERLING RN NR PINE GLEN, PA (LAT 41 0[illegible] [illegible]9 LONG 078 02 51)										
MAR , 1981										
26...	1410	5.3	100	4.9	4.0	.2	10	2	39	68
AUG										
13...	0930	3.7	73	4.6	13.0	.6	30	2	28	67
01542610 - S BR BENNETT BR SINNEMAHONING C NR PENFIELD, PA (LAT 41 10 27 LONG 078 35 00)										
MAR , 1981										
23...	1355	5.4	57	7.1	4.0	.1	5.0	13	15	42
AUG										
10...	1700	1.0	87	7.2	24.5	--	--	23	19	69
01542615 - MOUNTAIN RN NR PENFIELD, PA (LAT 41 11 40 LONG 078 36 02)										
MAR , 1981										
23...	1235	8.4	110	7.6	4.0	<.1	--	11	32	76
AUG										
10...	1540	2.0	148	7.8	23.0	--	--	12	45	102
01542721 - WILSON RN NR PENFIELD, PA (LAT 41 12 32 LONG 078 34 30)										
MAR , 1981										
23...	1100	6.8	134	6.7	3.5	--	--	7	27	77
AUG										
10...	1145	1.5	108	8.8	22.0	--	--	6	38	110
01542725 - MOOSE RN AT PENFIELD, PA (LAT 41 12 24 LONG 078 34 14)										
MAR , 1981										
23...	1145	1.9	>1000	4.1	3.0	1.6	79	--	750	1130
JUL										
14...	1030	2.4	2020	4.3	19.0	1.5	74	--	1200	1800
AUG										
10...	1330	.61	>1000	3.0	20.5	2.7	134	--	750	1190
SEP										
15...	1010	7.5	1350	3.8	17.5	1.2	60	--	930	1440

BEST DOCUMENT AVAILABLE

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01542300 - MOSHANNON C NR MOSHANNON, PA (LAT 41 02 10 LONG 078 03 36)										
MAR , 1981										
26...	.68	366	7800	500	7300	3700	0	3800	20	15
AUG										
13...	.91	222	2900	0	3000	4700	0	4700	2	.67
01542400 - BLK MOSHANNON C AT MOSHANNON, PA (LAT 41 02 08 LONG 078 03 22)										
MAR , 1981										
26...	.11	12.6	720	200	520	820	0	930	15	2.4
AUG										
13...	.14	10.4	910	580	330	1100	0	1100	9	.90
01542508 - MOSQUITO C NR KARTHAUS, PA (LAT 41 07 45 LONG 078 07 59)										
MAR , 1981										
26...	.06	5.5	120	50	70	480	0	490	9	1.2
AUG										
12...	.16	7.4	240	140	100	2200	0	2500	1	.06
01542520 - SALTLICK RN NR POTTERSDALE, PA (LAT 41 09 15 LONG 078 06 00)										
MAR , 1981										
26...	3.4	2.3	25000	0	26000	66000	6000	60000	13	.01
JUL										
15...	4.8	2.8	26000	0	28000	89000	30000	59000	20	.02
AUG										
12...	5.1	1.2	35000	0	36000	94000	0	99000	18	.01
SEP										
16...	4.7	1.6	52000	1000	51000	90000	0	92000	28	.01
01542524 - STERLING RN NR PINE GLEN, PA (LAT 41 06 59 LONG 078 02 51)										
MAR , 1981										
26...	.09	.98	190	130	60	760	0	860	10	.14
AUG										
13...	.09	.68	110	0	130	540	0	810	2	.02
01542610 - S BR BENNETT BR SINNEMAHONING C NR PENFIELD, PA (LAT 41 10 27 LONG 078 35 00)										
MAR , 1981										
23...	.06	.61	480	280	200	40	0	40	17	.25
AUG										
10...	.09	.19	4300	3600	730	350	140	210	42	.12
01542615 - MOUNTAIN RN NR PENFIELD, PA (LAT 41 11 40 LONG 078 36 02)										
MAR , 1981										
23...	.10	1.7	240	210	30	140	0	140	18	.41
AUG										
10...	.14	.57	240	180	60	60	0	70	3	.02
01542721 - WILSON RN NR PENFIELD, PA (LAT 41 12 32 LONG 078 34 30)										
MAR , 1981										
23...	.10	1.4	380	270	110	160	0	160	11	.20
AUG										
10...	.15	.46	430	420	10	140	70	70	9	.04
01542725 - MOOSE RN AT PENFIELD, PA (LAT 41 12 24 LONG 078 34 14)										
MAR , 1981										
23...	1.5	6.0	7600	2100	5500	2400	100	2300	21	.11
JUL										
14...	2.4	11.7	23000	19000	4400	3100	500	2600	97	.63
AUG										
10...	1.6	1.9	23000	17000	5900	4800	800	4000	137	.23
SEP										
15...	1.9	29.2	13000	5800	7200	3900	0	4200	78	1.6

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01542732 - KERSEY RN AT WEEDVILLE, PA (LAT 41 16 29 LONG 078 29 37)										
MAR , 1981										
26...	0810	20	80	5.4	.5	<.1	--	1	24	46
AUG										
12...	0840	8.7	90	6.1	16.5	--	--	5	24	67
01542748 - MEDIX RN NR MEDIX RUN, PA (LAT 41 16 29 LONG 078 24 06)										
MAR , 1981										
26...	1120	17	53	6.6	3.5	--	--	5	9.4	30
AUG										
12...	1030	2.7	60	7.0	19.0	--	--	9	9.4	32
01542750 - BENNETT BR SINNEMAHONING C AT MEDIX RUN, PA (LAT 41 17 21 LONG 078 23 48)										
MAR , 1981										
26...	1200	130	284	4.1	5.5	.1	5.0	--	91	159
AUG										
12...	1115	40	460	3.5	22.5	1.1	55	--	160	271
01542755 - SPRING RN NR WEEDVILLE, PA (LAT 41 19 27 LONG 078 27 28)										
MAR , 1981										
26...	0910	4.1	187	6.0	1.0	--	--	1	63	115
AUG										
12...	0940	1.9	262	6.7	16.0	--	--	4	92	178
01542760 - TROUT RN AT BENZETTE, PA (LAT 41 18 50 LONG 078 23 05)										
MAR , 1981										
26...	1030	33	130	7.1	2.0	--	--	4	40	87
AUG										
12...	1230	22	185	6.8	20.5	--	--	6	60	130
01542770 - DENTS RN AT DENTS RUN, PA (LAT 41 21 20 LONG 078 15 47)										
MAR , 1981										
25...	1730	17	523	3.7	5.0	.2	10	--	200	325
AUG										
12...	1320	7.5	900	3.3	22.0	2.0	99	--	400	652
01542775 - E BR HICKS RN NR HUSTON HILL, PA (LAT 41 22 47 LONG 078 16 46)										
MAR , 1981										
26...	1340	7.8	55	7.0	6.0	--	--	8	11	42
AUG										
12...	1620	4.2	61	6.9	20.0	--	--	11	11	37
01542780 - MIX RN NR DRIFTWOOD, PA (LAT 41 20 10 LONG 078 11 53)										
MAR , 1981										
26...	1440	24	50	7.2	7.5	--	--	4	12	26
AUG										
12...	1430	4.4	58	7.1	23.0	--	--	9	10	36
01542790 - BENNETT BR SINNEMAHONING C AT DRIFTWOOD, PA (LAT 41 20 02 LONG 078 08 08)										
MAR , 1981										
26...	1530	236	215	4.5	8.0	.1	5.0	--	63	112
AUG										
12...	1515	93	333	4.1	28.0	.6	30	--	120	201

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01542732 - KERSEY RN AT WEEDVILLE, PA (LAT 41 16 29 LONG 078 29 37)										
MAR , 1981										
26...	.06	2.5	360	290	70	190	40	150	2	.11
AUG										
12...	.09	1.5	260	220	40	160	0	170	1	.02
01542748 - MEDIX RN NR MEDIX RUN, PA (LAT 41 16 29 LONG 078 24 06)										
MAR , 1981										
26...	.04	1.4	220	210	10	20	10	10	2	.10
AUG										
12...	.04	.23	120	--	<10	10	0	10	1	.01
01542750 - BENNETT BR SINNEMAHONING C AT MEDIX RUN, PA (LAT 41 17 21 LONG 078 23 48)										
MAR , 1981										
26...	.22	55.8	3300	800	2500	650	90	560	5	1.8
AUG										
12...	.37	29.3	410	40	370	1200	0	1300	1	.11
01542755 - SPRING RN NR WEEDVILLE, PA (LAT 41 19 27 LONG 078 27 28)										
MAR , 1981										
26...	.16	1.2	410	280	130	1100	100	1000	3	.03
AUG										
12...	.24	.91	270	230	40	1600	0	1600	3	.02
01542760 - TROUT RN AT BENZETTE, PA (LAT 41 18 50 LONG 078 23 05)										
MAR , 1981										
26...	.12	7.8	360	340	20	490	110	380	1	.09
AUG										
12...	.18	7.7	210	200	10	650	0	650	3	.18
01542770 - DENTS RN AT DENTS RUN, PA (LAT 41 21 20 LONG 078 15 47)										
MAR , 1981										
25...	.44	15.6	2700	1400	1300	3900	0	4100	2	.10
AUG										
12...	.89	13.2	1100	110	990	9000	100	8900	1	.02
01542775 - E BR HICKS RN NR HUSTON HILL, PA (LAT 41 22 47 LONG 078 16 46)										
MAR , 1981										
26...	.06	.89	2200	2200	10	130	120	10	3	.06
AUG										
12...	.05	.42	390	350	40	30	--	<10	2	.02
01542780 - MIX RN NR DRIFTWOOD, PA (LAT 41 20 10 LONG 078 11 53)										
MAR , 1981										
26...	.04	1.7	1500	1500	0	50	40	10	3	.20
AUG										
12...	.05	.43	200	--	<10	20	10	10	1	.01
01542790 - BENNETT BR SINNEMAHONING C AT DRIFTWOOD, PA (LAT 41 20 02 LONG 078 08 08)										
MAR , 1981										
26...	.15	71.4	640	330	310	740	90	650	2	1.3
AUG										
12...	.27	50.5	210	90	120	1900	0	2000	1	.25

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DISSOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01542800 - DRIFTWOOD BR SINNEMAHONING C NR LOCKWOOD, PA (LAT 41 32 02 LONG 078 18 47)										
MAR , 1981										
24...	1500	24	51	7.0	5.0	--	--	8	8.0	24
AUG										
11...	1900	53	50	6.7	19.5	--	--	8	9.0	39
01542835 - BIG RN AT TRUMAN, PA (LAT 41 28 38 LONG 078 22 08)										
MAR , 1981										
24...	1330	3.0	81	7.0	4.0	--	--	7	13	48
AUG										
11...	1730	3.1	77	7.7	19.0	--	--	12	13	46
01542845 - WEST CREEK AT HOWARD SIDING, PA (LAT 41 28 37 LONG 078 19 28)										
MAR , 1981										
24...	1415	36	85	6.9	4.5	--	--	6	22	44
AUG										
11...	1800	62	65	7.0	20.5	--	--	6	15	37
01542886 - PARKER RUN AT GARDEAU, PA (LAT 41 37 16 LONG 078 13 33)										
MAR , 1981										
25...	0800	5.9	59	7.2	2.0	--	--	6	17	52
AUG										
10...	1000	14	70	6.6	16.0	.2	10	16	14	46
01542990 - HUNTS RN AT CAMERON, PA (LAT 41 27 08 LONG 078 10 29)										
MAR , 1981										
24...	1610	17	<50	7.0	4.5	--	--	4	8.2	29
AUG										
12...	1915	7.0	40	6.8	20.0	--	--	8	8.2	31
01543004 - STERLING RN NR STERLING RUN, PA (LAT 41 25 24 LONG 078 13 11)										
MAR , 1981										
24...	1645	10	145	5.0	4.5	<.1	--	1	43	82
AUG										
12...	1815	4.8	133	4.8	19.5	.2	10	1	37	89
01543008 - TANNERY HOLLOW RN NR STERLING RUN, PA (LAT 41 25 19 LONG 078 13 24)										
MAR , 1981										
24...	1730	2.8	50	7.5	4.0	--	--	6	9.6	18
AUG										
12...	1750	1.2	50	6.6	19.0	--	--	8	8.0	25
01544204 - COOKS RN NR KEATING, PA (LAT 41 17 16 LONG 077 54 16)										
MAR , 1981										
23...	0945	13	83	4.3	2.5	.6	30	--	29	51
AUG										
12...	1150	5.0	120	4.4	20.0	1.0	50	--	40	77
01544208 - CROWLEY HOLLOW NR KEATING, PA (LAT 41 17 22 LONG 077 54 00)										
MAR , 1981										
23...	1100	1.9	1500	3.0	4.0	17	849	--	870	1240
JUL										
16...	0945	1.3	1900	2.8	16.0	9.9	492	--	720	1180
AUG										
12...	1300	.77	2060	2.8	22.0	14	720	--	930	1500
SEP										
14...	1130	.99	2140	2.7	17.5	--	--	--	770	485

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01542800 - DRIFTWOOD BR SINNEMAHONING C NR LOCKWOOD, PA (LAT 41 32 02 LONG 078 18 47)										
MAR , 1981										
24...	.03	1.5	600	600	0	50	30	20	2	.13
AUG										
11...	.05	5.5	210	190	20	30	20	10	3	.43
01542835 - BIG RN AT TRUMAN, PA (LAT 41 28 38 LONG 078 22 08)										
MAR , 1981										
24...	.07	.40	190	190	0	40	30	10	2	.02
AUG										
11...	.06	.39	220	190	30	30	20	10	17	.14
01542845 - WEST CREEK AT HOWARD SIDING, PA (LAT 41 28 37 LONG 078 19 28)										
MAR , 1981										
24...	.06	4.2	330	290	40	140	50	90	2	.19
AUG										
11...	.05	6.1	290	250	40	30	0	30	1	.17
01542886 - PARKER RUN AT GARDEAU, PA (LAT 41 37 16 LONG 078 13 33)										
MAR , 1981										
25...	.07	.84	300	280	20	40	30	10	2	.03
AUG										
10...	.06	1.7	410	360	50	70	30	40	4	.15
01542990 - HUNTS RN AT CAMERON, PA (LAT 41 27 08 LONG 078 10 29)										
MAR , 1981										
24...	.04	1.3	1200	1200	10	100	90	10	1	.05
AUG										
12...	.04	.59	210	190	20	20	--	<10	1	.02
01543004 - STERLING RN NR STERLING RUN, PA (LAT 41 25 24 LONG 078 13 11)										
MAR , 1981										
24...	.11	2.2	220	180	40	660	90	570	1	.03
AUG										
12...	.12	1.1	130	120	10	530	0	540	1	.01
01543008 - TANNERY HOLLOW RN NR STERLING RUN, PA (LAT 41 25 19 LONG 078 13 24)										
MAR , 1981										
24...	.02	.14	220	180	40	20	10	10	3	.02
AUG										
12...	.03	.08	200	180	20	20	10	10	1	.00
01544204 - COOKS RN NR KEATING, PA (LAT 41 17 16 LONG 077 54 16)										
MAR , 1981										
23...	.07	1.7	120	70	50	340	0	360	1	.04
AUG										
12...	.10	1.0	210	160	50	700	0	750	1	.01
01544208 - CROWLEY HOLLOW NR KEATING, PA (LAT 41 17 22 LONG 077 54 00)										
MAR , 1981										
23...	1.6	6.3	55000	0	66000	10000	0	11000	13	.07
JUL										
16...	1.6	4.1	54000	0	54000	9700	0	10000	10	.04
AUG										
12...	2.0	3.1	58000	0	60000	12000	0	16000	1	.00
SEP										
14...	.66	1.3	55000	1000	54000	14000	1000	13000	1	.00

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01545017 - TWOMILE RN NR WESTPORT, PA (LAT 41 18 57 LONG 077 51 30)										
MAR , 1981										
23...	1415	4.8	570	3.4	5.0	3.7	184	--	200	408
JUL										
16...	1100	2.3	820	3.5	16.0	2.9	144	--	320	532
AUG										
12...	1400	1.6	950	3.3	22.0	4.8	238	--	460	679
SEP										
14...	1220	2.2	1010	3.2	17.0	3.0	149	--	380	101
01545490 - DRURY RN AT DRURY RUN, PA (LAT 41 19 45 LONG 077 46 47)										
MAR , 1981										
23...	1500	10	298	5.0	5.0	1.1	55	2	140	219
JUL										
16...	1150	4.7	300	4.9	17.5	.6	30	4	110	198
AUG										
12...	1500	3.9	273	4.6	23.0	.7	35	1	110	178
SEP										
14...	1330	10	245	4.6	17.0	.4	20	--	87	68
01545504 - PADDY RN NR RENOVO, PA (LAT 41 19 50 LONG 077 43 42)										
MAR , 1981										
23...	1635	12	<50	7.0	5.5	--	--	7	9.5	20
AUG										
12...	1645	3.5	<50	6.0	24.5	.1	5.0	5	8.0	29
01545660 - BAKER RN NR HYNER, PA (LAT 41 14 45 LONG 077 36 30)										
MAR , 1981										
23...	1730	24	28	7.2	5.0	.1	5.0	4	6.5	28
AUG										
12...	1820	8.5	<50	6.0	21.0	.2	10	7	5.6	66
01545680 - TANGASCOOTACK CREEK NEAR LOCK HAVEN, PA. (LAT 41 10 32 LONG 077 32 53)										
MAR , 1981										
24...	0800	25	75	7.0	2.5	--	--	5	27	45
JUL										
16...	1315	34	70	7.7	14.5	--	--	8	20	39
AUG										
13...	1000	19	103	7.3	15.0	<.1	--	7	34	77
SEP										
14...	1445	18	120	6.5	17.5	--	--	4	47	77
01547704 - SANDY RN NR SNOW SHOE, PA (LAT 41 04 24 LONG 077 52 12)										
MAR , 1981										
23...	1735	15	742	3.6	7.5	2.6	129	--	370	502
AUG										
13...	1730	6.7	<1000	3.1	20.5	2.7	134	--	340	648
01547706 - WOLF RN NR SNOW SHOE, PA (LAT 41 05 22 LONG 077 52 07)										
MAR , 1981										
23...	1850	7.6	35	5.5	7.0	--	--	--	10	32
AUG										
13...	1640	4.3	27	5.4	18.5	--	--	4	7.8	28
01547760 - N FK BEECH C AT CLARENCE, PA (LAT 41 03 02 LONG 077 56 25)										
MAR , 1981										
23...	1530	15	580	3.6	6.5	1.3	65	--	230	337
AUG										
13...	1400	4.5	600	4.4	19.0	1.5	74	--	210	341

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01545017 - TWOMILE RN NR WESTPORT, PA (LAT 41 18 57 LONG 077 51 30)										
MAR , 1981										
23...	.55	5.2	3500	0	3500	7000	400	6600	1	.01
JUL										
16...	.72	3.4	5700	100	5600	8700	600	8100	3	.02
AUG										
12...	.92	2.9	4200	0	5700	11000	0	11000	1	.00
SEP										
14...	.14	.62	6900	300	6600	12000	0	12000	1	.01
01545490 - DRURY RN AT DRURY RUN, PA (LAT 41 19 45 LONG 077 46 47)										
MAR , 1981										
23...	.30	5.9	150	60	90	4000	0	4100	2	.05
JUL										
16...	.27	2.5	190	120	70	3400	100	3300	21	.27
AUG										
12...	.24	1.8	230	190	40	2800	0	2900	1	.01
SEP										
14...	.09	1.9	240	170	70	2700	100	2600	1	.03
01545504 - PADDY RN NR RENOVO, PA (LAT 41 19 50 LONG 077 43 42)										
MAR , 1981										
23...	.03	.65	100	100	0	70	60	10	1	.03
AUG										
12...	.04	.28	190	150	40	50	--	<10	1	.01
01545660 - BAKER RN NR HYNER, PA (LAT 41 14 45 LONG 077 36 30)										
MAR , 1981										
23...	.04	1.8	90	90	0	10	0	10	3	.19
AUG										
12...	.09	1.5	140	120	20	20	--	<10	1	.02
01545680 - TANGASCOOTACK CREEK NEAR LOCK HAVEN, PA. (LAT 41 10 32 LONG 077 32 53)										
MAR , 1981										
24...	.06	3.0	100	70	30	370	0	400	1	.07
JUL										
16...	.05	3.5	50	30	20	250	0	260	2	.18
AUG										
13...	.10	4.0	160	130	30	540	0	560	1	.05
SEP										
14...	.10	3.8	160	130	30	590	0	600	1	.05
01547704 - SANDY RN NR SNOW SHOE, PA (LAT 41 04 24 LONG 077 52 12)										
MAR , 1981										
23...	.68	20.3	8700	0	9300	8000	0	8000	2	.08
AUG										
13...	.88	11.9	12000	1000	11000	10000	0	12000	23	.42
01547706 - WOLF RN NR SNOW SHOE, PA (LAT 41 05 22 LONG 077 52 07)										
MAR , 1981										
23...	.04	.66	70	50	20	90	30	60	1	.02
AUG										
13...	.04	.33	140	130	10	20	0	30	2	.02
01547760 - N FK BEECH C AT CLARENCE, PA (LAT 41 03 02 LONG 077 56 25)										
MAR , 1981										
23...	.46	13.6	6500	100	6400	3900	0	4000	8	.32
AUG										
13...	.46	4.2	5000	200	4800	4100	0	4300	8	.10

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH UNITS	TEMPERATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DISSOLVED (MG/L)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01549543 - L PINE C NR ENGLISH CENTER, PA (LAT 41 26 05 LONG 077 17 20)										
MAR , 1981										
25...	1115	30	68	7.3	3.5	.1	5.0	12	12	41
AUG										
11...	1615	21	80	7.1	24.5	--	--	22	11	51
01549547 - ENGLISH RN AT ENGLISH CENTER, PA (LAT 41 26 08 LONG 077 17 25)										
MAR , 1981										
25...	1040	6.2	35	7.2	3.0	--	--	5	12	29
AUG										
11...	1700	2.0	65	7.3	20.0	--	--	20	10	49
01549560 - OTTER RN AT CARSONTOWN, PA (LAT 41 34 25 LONG 078 20 05)										
MAR , 1981										
25...	0945	14	61	6.5	3.5	.2	10	2	33	58
AUG										
11...	1745	4.5	85	6.7	21.0	.2	10	6	30	68
01549782 - LARRYS C NR SALLADASBURG, PA (LAT 41 19 15 LONG 077 11 29)										
MAR , 1981										
25...	0730	14	61	7.0	2.0	--	--	9	10	41
AUG										
13...	1200	7.4	67	7.0	17.0	--	--	17	12	43
01549903 - RED RN AT RALSTON, PA (LAT 41 30 33 LONG 076 57 13)										
MAR , 1981										
25...	1245	4.0	91	4.6	2.5	.5	25	--	27	37
AUG										
13...	1520	2.6	120	4.1	17.0	.5	25	--	38	70
01549906 - MINERS RN NR RALSTON, PA (LAT 41 30 58 LONG 076 55 02)										
MAR , 1981										
25...	1345	1.5	41	4.7	2.5	.3	15	<1	11	16
AUG										
13...	1620	.43	<50	4.7	17.0	.3	15	<1	11	27
01549909 - FROZEN RN NR RALSTON, PA (LAT 41 29 12 LONG 076 58 25)										
MAR , 1981										
25...	1440	3.9	34	5.9	3.0	.2	10	2	7.9	18
AUG										
13...	1400	1.9	<50	6.4	17.0	.2	10	5	10	12
01551810 - LOYALSOCK C AT LOPEZ, PA (LAT 41 27 31 LONG 076 19 53)										
MAR , 1981										
26...	1045	21	38	7.2	2.0	--	--	3	10	21
AUG										
10...	1200	3.3	<50	7.0	22.0	--	--	12	6.3	33
01551817 - BIRCH C NR RINGDALE, PA (LAT 41 27 22 LONG 076 26 38)										
MAR , 1981										
26...	0950	8.3	75	7.0	2.0	.2	10	8	14	40
AUG										
10...	1100	1.7	83	6.9	19.0	--	--	20	15	50

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
WEST BRANCH SUSQUEHANNA RIVER BASIN										
01549543 - L PINE C NR ENGLISH CENTER, PA (LAT 41 26 05 LONG 077 17 20)										
MAR , 1981										
25...	.06	3.3	30	30	0	10	0	10	1	.08
AUG										
11...	.07	2.9	140	130	10	20	--	<10	1	.06
01549547 - ENGLISH RN AT ENGLISH CENTER, PA (LAT 41 26 08 LONG 077 17 25)										
MAR , 1981										
25...	.04	.49	340	330	10	30	20	10	1	.02
AUG										
11...	.07	.27	180	150	30	10	--	<10	26	.14
01549560 - OTTER RN AT CARSONTOWN, PA (LAT 41 24 25 LONG 078 20 05)										
MAR , 1981										
25...	.08	2.1	100	80	20	240	0	250	1	.04
AUG										
11...	.09	.84	140	--	<10	20	10	10	1	.01
01549782 - LARRYS C NR SALLADASBURG, PA (LAT 41 19 15 LONG 077 11 29)										
MAR , 1981										
25...	.06	1.5	70	60	10	10	0	10	2	.08
AUG										
13...	.06	.86	130	0	250	30	20	10	1	.02
01549903 - RED RN AT RALSTON, PA (LAT 41 30 33 LONG 076 57 13)										
MAR , 1981										
25...	.05	.40	850	720	130	750	740	10	1	.01
AUG										
13...	.10	.50	310	190	120	890	0	920	1	.01
01549906 - MINERS RN NR RALSTON, PA (LAT 41 30 58 LONG 076 55 02)										
MAR , 1981										
25...	.02	.06	320	300	20	220	0	220	1	.00
AUG										
13...	.04	.03	110	--	<10	180	0	180	1	.00
01549909 - FROZEN RN NR RALSTON, PA (LAT 41 29 12 LONG 076 58 25)										
MAR , 1981										
25...	.02	.19	180	170	10	140	20	120	1	.01
AUG										
13...	.02	.06	130	120	10	70	10	60	1	.01
01551810 - LOYALSOCK C AT LOPEZ, PA (LAT 41 27 31 LONG 076 19 53)										
MAR , 1981										
26...	.03	1.1	1300	1300	30	80	40	40	2	.11
AUG										
10...	.04	.30	110	60	50	30	10	20	1	.01
01551817 - BIRCH C NR RINGDALE, PA (LAT 41 27 22 LONG 076 26 38)										
MAR , 1981										
26...	.05	.90	200	180	20	30	20	10	2	.04
AUG										
10...	.07	.24	100	90	10	20	--	<10	1	.00

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

JUNIATA RIVER BASIN

01555831 - GLENWHITE RN NR ALTOONA, PA (LAT 40 29 47 LONG 078 29 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
APR , 1981										
03...	0945	17	174	4.6	9.0	.3	15	--	58	100
AUG										
13...	1045	1.7	473	3.7	16.0	.6	30	--	160	267

01555835 - KITTANING C NR ALTOONA, PA (LAT 40 29 54 LONG 078 29 04)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
APR , 1981										
03...	1103	10	610	3.3	11.0	2.8	139	--	200	342
AUG										
13...	1225	1.4	1200	2.6	17.0	5.8	288	--	480	704

01555849 - SUGAR RN NR ALTOONA, PA (LAT 40 28 04 LONG 078 26 23)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
APR , 1981										
03...	1307	17	240	5.0	14.0	.3	15	2	83	143
AUG										
13...	1405	2.1	478	4.3	19.5	.4	20	--	180	330

01555855 - BLAIRS GAP RN NR FOOT OF TEN, PA (LAT 40 25 09 LONG 078 28 43)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
APR , 1981										
03...	1439	40	108	6.9	11.5	--	--	11	15	56
AUG										
13...	1605	.81	144	7.5	20.5	--	--	28	18	79

01556430 - BELLS GAP RN NR BLANDBURG, PA (LAT 40 38 27 LONG 078 24 01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
MAR , 1981										
27...	0925	20	72	5.7	5.0	.1	5.0	3	25	48
AUG										
17...	1930	.30	200	5.3	14.5	.6	30	21	80	160

01556432 - SHAW RN NR BLANDBURG, PA (LAT 40 38 22 LONG 078 23 44)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
MAR , 1981										
27...	0815	7.3	63	7.0	5.5	--	--	<1	20	41
AUG										
17...	1845	.57	172	7.1	15.0	--	--	17	59	127

01561430 - SANDY RN AT HOPEWELL, PA (LAT 40 07 41 LONG 078 15 41)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
MAR , 1981										
19...	1430	--	409	3.6	3.5	1.3	65	--	140	238
AUG										
11...	1030	1.8	910	2.8	18.0	4.0	199	--	370	625

01561600 - SIXMILE RN NR RIDDLESBURG, PA (LAT 40 09 43 LONG 078 15 11)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
MAR , 1981										
19...	1130	--	399	4.0	2.0	.7	35	--	160	269
AUG										
11...	0830	2.3	925	3.3	17.0	2.1	104	--	440	691

01562008 - SHOUP RN NR SAXTON, PA (LAT 40 13 20 LONG 078 12 54)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
MAR , 1981										
19...	0830	15	371	3.8	3.0	.9	45	--	140	231
AUG										
10...	1500	7.0	535	3.6	17.0	1.1	55	--	210	366

BEST DOCUMENT AVAILABLE

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUNIATA RIVER BASIN										
01555831 - GLENWHITE RN NR ALTOONA, PA (LAT 40 29 47 LONG 078 29 10)										
APR , 1981										
03...	.14	4.6	990	170	820	940	20	920	3	.14
AUG										
13...	.36	1.2	2200	1900	300	2900	400	2500	2	.01
01555835 - KITTANING C NR ALTOONA, PA (LAT 40 29 54 LONG 078 29 04)										
APR , 1981										
03...	.47	9.3	12000	0	12000	3000	300	2700	14	.38
AUG										
13...	.96	2.6	28000	0	28000	7600	400	7200	8	.03
01555849 - SUGAR RN NR ALTOONA, PA (LAT 40 28 04 LONG 078 26 23)										
APR , 1981										
03...	.19	6.6	1600	820	780	480	20	460	16	.75
AUG										
13...	.45	1.8	2100	2000	110	1200	0	1200	38	.22
01555855 - BLAIRS GAP RN NR FOOT OF TEN, PA (LAT 40 25 09 LONG 078 28 43)										
APR , 1981										
03...	.08	6.1	240	210	30	40	10	30	3	.33
AUG										
13...	.11	.17	290	260	30	20	--	<10	8	.02
01556430 - BELLS GAP RN NR BLANDBURG, PA (LAT 40 38 27 LONG 078 24 01)										
MAR , 1981										
27...	.07	2.6	140	130	10	300	0	320	5	.28
AUG										
17...	.22	.13	80	70	10	1400	0	1600	5	.00
01556432 - SHAW RN NR BLANDBURG, PA (LAT 40 38 22 LONG 078 23 44)										
MAR , 1981										
27...	.06	.81	90	90	0	320	0	330	7	.14
AUG										
17...	.17	.20	90	80	10	570	0	610	2	.00
01561430 - SANDY RN AT HOPEWELL, PA (LAT 40 07 41 LONG 078 15 41)										
MAR , 1981										
19...	.32	--	6800	400	6400	1400	0	1600	38	--
AUG										
11...	.85	3.1	16000	0	16000	3000	0	3100	44	.22
01561600 - SIXMILE RN NR RIDDLESBURG, PA (LAT 40 09 43 LONG 078 15 11)										
MAR , 1981										
19...	.37	--	2700	200	2500	680	0	770	6	--
AUG										
11...	.94	4.2	3400	300	3100	2600	0	2600	5	.03
01562008 - SHOUP RN NR SAXTON, PA (LAT 40 13 20 LONG 078 12 54)										
MAR , 1981										
19...	.31	9.4	340	70	270	1300	0	1500	1	.04
AUG										
10...	.50	6.9	1300	1000	280	2200	0	2300	1	.02

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG°C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG.°C DIS-SOLVED (MG/L)
JUNIATA RIVER BASIN										
01562250 - TATMAN RN NR ENTRIKEN, PA (LAT 40 18 03 LONG 078 09 47)										
MAR , 1981										
18...	0900	9.1	94	7.1	.5	--	--	16	16	52
AUG										
10...	1000	.40	126	7.8	18.0	--	--	61	5.7	77
01562450 - GREAT TROUGH C NR CASSVILLE, PA (LAT 40 16 47 LONG 078 02 52)										
MAR , 1981										
18...	1400	59	89	5.7	1.5	.9	45	2	26	58
AUG										
10...	1230	1.3	99	6.9	23.0	--	--	10	29	83
POTOMAC RIVER BASIN										
01600490 - WILLS C AT GLENCOE, PA (LAT 39 49 12 LONG 078 50 41)										
MAR , 1981										
23...	1400	34	73	7.0	7.0	--	--	10	14	46
AUG										
14...	0900	13	108	7.4	18.0	--	--	32	13	65
01600498 - WILLS C NR HYNDMAN, PA (LAT 39 50 04 LONG 078 44 54)										
MAR , 1981										
23...	1030	124	71	7.0	6.0	--	--	9	13	41
AUG										
14...	1000	4.5	120	7.3	20.0	--	--	36	17	75
01601080 - GLADDENS RN NR HYNDMAN, PA (LAT 39 44 42 LONG 078 45 15)										
MAR , 1981										
23...	0830	13	129	7.3	4.0	--	--	21	28	78
AUG										
14...	1200	1.2	268	8.3	21.0	--	--	60	60	--

COAL-HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUNIATA RIVER BASIN										
01562250 - TATMAN RN NR ENTRIKEN, PA (LAT 40 18 03 LONG 078 09 47)										
MAR , 1981										
18...	.07	1.2	140	120	20	10	0	20	3	.07
AUG										
10...	.10	.08	350	310	40	40	30	10	9	.01
01562450 GREAT TROUGH C NR CASSVILLE, PA (LAT 40 16 47 LONG 078 02 52)										
MAR , 1981										
18...	.08	9.2	310	210	100	200	0	200	6	.96
AUG										
10...	.11	.29	950	710	240	270	0	280	9	.03
POTOMAC RIVER BASIN										
01600490 - WILLS C AT GLENCOE, PA (LAT 39 49 12 LONG 078 50 41)										
MAR , 1981										
23...	.06	4.2	130	130	0	10	0	10	3	.28
AUG										
14...	.09	2.2	550	--	10	20	10	10	3	.11
01600498 - WILLS C NR HYNDMAN, PA (LAT 39 50 04 LONG 078 44 54)										
MAR , 1981										
23...	.06	13.7	210	190	20	10	0	10	15	5.0
AUG										
14...	.10	.91	500	480	20	10	--	<10	3	.04
01601080 - GLADDENS RN NR HYNDMAN, PA (LAT 39 44 42 LONG 078 45 15)										
MAR , 1981										
23...	.11	2.8	160	150	10	20	10	10	6	.22
AUG										
14...	--	--	120	--	10	10	--	10	2	.01

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

REVISED PESTICIDE ANALYSES, JUNE 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SIMAZINE TOTAL (UG/L)	PROMETRYNE TOTAL (UG/L)
PEQUEA CREEK BASIN				
01576763 - PEQUEA CREEK NEAR VINTAGE, PA (LAT 40 01 04 LONG 76 04 12)				
JUN , 1978				
02...	1930	64	.15	.0
01576768 - PEQUEA CREEK TRIBUTARY NEAR STRASBURG, PA (LAT 40 00 01 LONG 76 10 16)				
JUN , 1978				
21...	1905	122	.21	.0
01576769 - PEQUEA CREEK AT STRASBURG, PA (LAT 40 00 21 LONG 76 11 12)				
JUN , 1978				
21...	1745	115	.11	.0
01576775 - BIG BEAVER CREEK TRIBUTARY AT NEW PROVIDENCE,PA (LAT 39 56 00 LONG 76 12 04)				
JUN , 1978				
21...	1855	14	1.2	.0
01576777 - BIG BEAVER CREEK AT REFTON, PA (LAT 39 56 28 LONG 76 14 28)				
JUN , 1978				
02...	2230	20	.52	.0
21...	1700	56	1.7	.0
21...	2100	680	.50	.0
01576786 - PEQUEA CREEK TRIBUTARY NEAR MARTIC FORGE, PA (LAT 39 54 28 LONG 76 19 06)				
JUN , 1978				
21...	1915	30	12.4	.0

395846077040601. Local number, AD 146.

LOCATION.--Lat 39°58'46", long 77°04'06", Hydrologic Unit 02050306, at State Game Land Number 249. Owner: U.S. Geological Survey.
AQUIFER.--Shale and sandstone of Gettysburg Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 17 ft (5.1 m), open hole.
DATUM.--Altitude of land-surface datum is 540 ft (165 m). Measuring point: Top of casing, 2.00 ft (61 cm) above land-surface datum.
REMARKS.--Water-quality records for 1973-75 are available in files of district office.
PERIOD OF RECORD.--January 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.87 ft (3.008 m) below land-surface datum, June 21, 1972; lowest 13.66 ft (4.164 m) below land-surface datum, Sept. 24, 1960.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.44	13.09	12.24	12.60	12.85	11.80	12.05	12.28	12.58	12.53	13.10	12.77
2	13.48	13.12	12.21	12.69	12.70	11.85	12.05	12.23	12.53	12.50	13.10	12.78
3	13.48	13.13	12.33	12.71	11.84	11.97	12.10	12.32	12.44	12.50	13.10	12.76
4	13.52	13.03	12.32	12.79	12.08	11.97	12.09	12.36	12.19	12.43	12.81	12.63
5	13.52	13.08	12.36	12.82	12.27	11.92	12.09	12.40	12.22	11.93	12.83	12.65
6	13.51	13.06	12.39	12.75	12.36	11.92	12.12	12.39	12.29	12.08	12.86	12.65
7	13.51	13.03	12.35	12.83	12.37	11.90	12.16	12.44	12.47	12.24	12.87	12.67
8	13.50	13.10	12.33	12.88	12.42	11.83	12.16	12.48	12.53	12.35	12.89	12.66
9	13.56	13.05	12.32	12.86	12.50	11.63	12.17	12.49	12.50	12.47	12.98	12.77
10	13.51	13.08	12.33	12.89	12.52	11.61	12.22	12.46	12.47	12.59	13.03	12.83
11	13.49	13.07	12.35	12.90	12.15	11.69	12.16	12.30	12.35	12.69	13.03	12.90
12	13.54	13.08	12.33	12.91	11.75	11.71	11.91	11.85	12.44	12.75	13.04	12.94
13	13.55	13.09	12.38	12.90	11.89	11.83	11.53	11.93	12.50	12.79	13.08	12.95
14	13.51	13.04	12.43	12.93	11.99	11.96	11.48	12.01	11.94	12.89	13.11	12.96
15	13.52	13.05	12.44	12.97	12.05	11.95	11.47	12.08	11.22	12.94	13.10	12.99
16	13.51	13.07	12.40	12.95	12.06	11.87	11.56	12.14	11.59	12.96	13.13	12.80
17	13.50	13.06	12.44	12.94	12.05	11.94	11.62	12.24	11.84	12.99	13.21	12.70
18	13.46	12.73	12.44	12.94	11.98	11.98	11.81	12.27	12.01	13.05	13.24	12.66
19	13.44	12.75	12.51	12.96	11.86	12.00	11.85	12.30	12.08	13.10	13.26	12.64
20	13.43	12.77	12.59	12.94	11.50	12.05	11.92	12.35	12.00	13.06	13.30	12.74
21	13.47	12.80	12.64	12.86	11.33	12.14	11.99	12.41	11.60	12.79	13.33	12.79
22	13.54	12.85	12.63	12.82	11.44	12.18	12.00	12.54	11.54	12.88	13.34	12.78
23	13.50	12.83	12.60	12.82	11.38	12.12	11.96	12.58	11.77	12.96	13.34	12.83
24	13.42	12.72	12.66	12.83	11.37	12.17	11.96	12.66	11.95	12.96	13.35	12.91
25	13.34	11.93	12.69	12.83	11.53	12.21	12.08	12.70	12.05	12.90	13.38	12.94
26	13.10	12.13	12.69	12.72	11.69	12.23	12.13	12.76	11.96	12.83	13.37	12.95
27	13.10	12.14	12.72	12.74	11.73	12.22	12.16	12.77	12.16	12.88	13.41	12.94
28	13.10	12.08	12.71	12.76	11.71	12.25	12.19	12.73	12.31	12.92	13.45	13.03
29	13.10	12.13	12.61	12.83	---	12.21	12.25	12.60	12.37	12.92	13.44	13.04
30	13.08	12.19	12.58	12.86	---	12.18	12.29	12.36	12.45	13.02	13.43	13.04
31	13.03	---	12.60	12.90	---	12.10	---	12.49	---	13.07	13.39	---
MEAN	13.41	12.81	12.47	12.84	11.98	11.98	11.98	12.38	12.15	12.74	13.17	12.82
MAX	13.56	13.13	12.72	12.97	12.85	12.25	12.29	12.77	12.58	13.10	13.45	13.04
MIN	13.03	11.93	12.21	12.60	11.33	11.61	11.47	11.85	11.22	11.93	12.81	12.63

WTR YR 1981 MEAN 12.57 HIGH 11.22 LOW 13.56

400217078281901. Local number, BD 150.

LOCATION.--Lat 40°02'17", long 78°28'19", Hydrologic Unit 02050303, at Bedford.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Onondaga Formation of Middle Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 150 ft (45.7 m), cased to 47 ft (14.3 m), open hole.
DATUM.--Altitude of land-surface datum is 1,160 ft (354 m). Measuring point: Top of casing, 3.05 ft (93 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.38 ft (0.12 m) above land-surface datum, May 20, 1978; lowest, 41.42 ft (12.625 m) below land-surface datum, Feb. 12, 13, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.44	27.14	26.46	27.54	30.00	21.81	20.45	11.12	2.49	10.15	16.62	21.37
2	24.56	27.25	26.37	27.74	30.13	21.54	20.44	11.24	2.69	10.42	16.71	21.45
3	24.63	27.26	26.36	27.83	30.19	21.34	20.31	11.25	2.89	10.64	16.87	21.53
4	24.82	27.30	26.34	28.01	30.20	21.33	---	11.09	2.99	10.74	17.04	21.53
5	24.94	27.42	26.07	28.06	30.17	21.17	---	10.88	2.81	10.86	17.24	21.43
6	25.00	27.45	25.97	28.04	30.12	21.46	---	10.92	2.20	---	17.35	21.19
7	25.07	27.50	26.02	28.22	30.10	21.73	---	11.12	2.33	---	17.46	20.97
8	25.13	27.64	26.02	28.34	30.11	21.91	---	11.36	2.71	---	17.67	20.77
9	25.28	27.65	26.05	28.40	30.26	21.99	---	11.53	3.16	---	17.95	20.63
10	25.31	27.80	26.07	28.51	30.27	21.92	---	11.61	3.65	---	18.15	20.46
11	25.42	27.85	25.95	28.58	30.34	21.41	---	11.61	4.11	---	18.28	20.31
12	25.56	27.93	25.67	28.63	30.43	20.73	---	10.98	4.41	---	18.47	20.38
13	25.66	27.95	25.44	28.68	30.34	20.14	---	8.46	4.76	---	18.66	20.47
14	25.73	28.04	25.52	28.81	30.12	19.94	---	7.41	5.08	---	18.81	20.55
15	25.83	28.11	25.56	28.93	29.97	19.92	---	7.08	5.18	---	18.86	20.71
16	---	28.20	25.66	29.02	29.90	19.69	---	7.04	5.25	---	19.07	20.77
17	---	28.21	25.81	29.07	29.84	19.70	---	6.62	5.65	---	19.28	20.77
18	---	28.29	---	29.14	29.86	19.53	---	6.32	5.96	---	19.44	20.61
19	---	28.34	---	29.22	29.85	19.45	---	6.31	6.30	---	19.60	20.42
20	---	28.33	---	29.30	29.73	19.45	---	6.69	6.62	---	19.75	20.45
21	---	28.34	---	29.35	29.56	19.81	---	6.97	6.98	---	19.97	20.62
22	26.39	28.33	26.47	29.39	28.75	19.98	---	7.29	7.32	14.50	20.10	20.81
23	26.59	28.33	26.55	29.48	27.33	19.97	10.27	7.66	7.78	14.87	20.22	21.04
24	26.59	28.27	26.74	29.54	25.49	20.06	10.35	8.00	8.08	15.09	20.41	21.23
25	26.59	28.08	26.91	29.59	24.26	20.24	10.63	8.33	8.29	15.28	20.59	21.34
26	26.73	27.98	27.01	29.63	23.38	20.27	10.73	8.59	8.68	15.42	20.70	---
27	26.74	27.63	27.16	29.75	22.82	20.43	10.78	8.56	9.05	15.66	20.86	---
28	26.85	27.23	27.21	29.81	22.29	20.51	10.78	6.75	9.38	15.76	21.05	---
29	26.95	26.82	27.21	29.95	---	20.43	10.87	5.50	9.59	15.97	21.17	---
30	26.98	26.64	27.36	29.99	---	20.28	11.02	3.79	9.84	16.23	21.26	---
31	27.02	---	27.45	30.01	---	20.45	---	2.90	---	16.48	21.31	---
MEAN	25.79	27.78	26.35	28.92	28.78	20.60	13.33	8.55	5.54	13.87	19.06	20.87
MAX	27.02	28.34	27.45	30.01	30.43	21.99	20.45	11.61	9.84	16.48	21.31	21.53
MIN	24.44	26.64	25.44	27.54	22.29	19.45	10.27	2.90	2.20	10.15	16.62	20.31

WTR YR 1981 MEAN 20.41 HIGH 2.20 LOW 30.43

402452078271301. Local number, BA 74.

LOCATION.--Lat 40°24'52", long 78°27'13", Hydrologic Unit 02050302, at National park Land. Owner: U.S. Geological Survey.

AQUIFER.--Shale of Brallier Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 150 ft (45.7 m), cased to 14 ft (4.3 m), open hole.

DATUM.--Altitude of land-surface datum is 1,130 ft (344 m). Measuring point: Top of casing, 1.80 ft (55 cm) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--August 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.45 ft (3.19 m) below land-surface datum, Mar. 21, 1978; and others; lowest, 18.65 ft (5.685 m) below land-surface datum, Oct. 29, 30, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	14.28	12.28	12.90	13.52	11.27	11.49	11.03	12.44	12.54	13.36	14.44
2	---	14.38	---	13.07	13.19	11.30	11.41	11.17	12.45	12.62	13.29	14.33
3	---	14.39	---	13.08	12.84	11.48	11.38	11.26	12.38	12.59	13.32	14.29
4	---	14.27	---	13.28	12.81	11.49	11.27	11.30	12.02	12.52	13.39	14.03
5	---	14.24	---	13.33	12.75	11.42	11.37	11.34	11.92	12.41	13.49	13.69
6	---	14.30	---	13.34	12.71	11.55	11.57	11.44	12.21	12.50	13.50	13.46
7	---	14.27	---	13.20	12.65	11.64	11.63	11.59	12.36	12.67	13.51	13.32
8	---	14.36	---	13.37	12.53	11.64	11.58	11.71	12.38	12.76	13.68	13.15
9	---	14.36	---	13.42	12.77	11.61	11.71	11.75	12.38	12.80	13.87	12.97
10	---	14.16	---	13.46	12.81	11.44	11.78	11.77	12.42	12.96	13.92	12.94
11	---	14.15	---	13.48	12.60	11.28	11.69	11.71	12.54	13.10	13.94	12.92
12	---	14.09	---	---	12.56	11.20	11.59	11.24	12.57	13.20	14.03	12.96
13	---	14.08	---	---	12.54	11.14	11.22	11.11	12.62	13.19	14.10	12.99
14	---	13.92	---	---	12.38	11.34	10.89	10.98	12.35	13.29	14.15	12.97
15	---	13.89	---	---	12.30	11.33	10.65	10.91	11.96	13.41	14.08	13.00
16	---	13.98	---	---	12.23	11.31	10.58	10.65	11.84	13.47	14.17	12.94
17	---	13.99	---	---	12.15	11.36	10.45	10.89	11.95	13.56	14.27	12.78
18	---	13.79	---	---	12.07	---	10.64	10.91	11.99	13.65	14.32	12.79
19	---	13.80	---	13.60	11.90	---	10.71	10.95	12.01	13.69	14.36	12.67
20	14.80	13.76	12.48	13.72	11.50	11.28	11.05	11.16	11.95	13.65	14.45	12.72
21	---	13.73	12.59	13.73	11.41	11.64	11.17	11.28	12.01	13.45	14.53	12.80
22	15.35	13.64	12.63	13.69	11.41	11.66	11.18	11.45	12.03	13.60	14.56	12.82
23	15.52	13.65	12.52	13.60	11.24	11.56	11.14	11.57	12.23	13.65	14.54	12.95
24	15.52	13.45	12.41	13.65	11.12	11.46	11.05	11.69	12.30	13.66	14.63	13.04
25	15.40	13.03	12.70	13.70	11.21	11.54	11.24	11.82	12.27	13.67	14.71	13.10
26	14.74	12.95	12.73	13.64	11.33	11.56	11.28	11.93	12.16	13.67	14.76	13.09
27	14.67	12.81	12.90	13.51	11.35	11.61	11.29	11.96	12.24	13.54	14.75	13.05
28	14.46	12.48	12.93	13.49	11.30	11.64	11.27	12.00	12.32	13.46	14.86	13.28
29	14.43	12.25	12.91	13.58	---	11.52	11.14	12.07	12.35	13.24	14.90	13.35
30	14.43	12.34	12.84	13.59	---	11.39	11.12	12.11	12.38	13.30	14.87	13.38
31	14.32	---	12.87	13.59	---	11.50	---	12.36	---	13.36	14.70	---
MEAN	14.88	13.76	12.68	13.46	12.19	11.45	11.22	11.46	12.23	13.20	14.16	13.21
MAX	15.52	14.39	12.93	13.73	13.52	11.66	11.78	12.36	12.62	13.69	14.90	14.44
MIN	14.32	12.25	12.28	12.90	11.12	11.14	10.45	10.85	11.84	12.41	13.29	12.67

WTR YR 1981 MEAN 12.71 HIGH 10.45 LOW 15.52

414330076280501. Local number, BR 92.

LOCATION.--Lat 41°43'30", long 76°28'05", Hydrologic Unit 02050106, at Monroeton.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Gardeau Formation of Late Devonian age.
WELL CHARACTERISTICS--Drilled observation artesian well, diameter 6 in (15 cm), depth 117 ft (35.7 m), cased to 55 ft (16.8 m), open hole.
DATUM.--Altitude of land-surface datum is 750 ft (229 m). Measuring point: Top of casing, 3.05 ft (93 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--May 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.53 ft (0.47 m) below land-surface datum, Jan. 28, 1978; lowest, 11.86 ft (3.615 m) below land-surface datum, Oct. 23, 24, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.74	10.80	11.00	11.24	4.96	9.60	9.76	9.98	9.91	10.68	11.30
2	---	11.73	10.81	11.03	11.14	5.17	9.61	9.70	9.99	9.97	10.69	11.30
3	---	11.72	10.81	11.04	10.95	5.42	9.62	9.68	9.99	10.01	10.73	11.31
4	---	11.71	10.81	11.06	10.54	5.60	9.62	9.74	9.92	10.02	10.76	11.31
5	---	11.71	10.78	11.08	10.49	5.85	9.68	9.78	9.85	10.02	10.78	11.32
6	---	11.71	10.79	11.07	10.41	6.10	9.73	9.89	9.82	9.99	10.80	11.32
7	---	11.71	10.78	11.11	10.38	6.38	9.75	9.99	9.85	9.88	10.83	11.27
8	---	11.73	10.79	11.13	10.34	6.62	9.77	10.11	9.88	9.90	10.86	11.26
9	---	11.73	10.79	11.13	10.32	6.83	9.84	10.19	9.93	9.94	10.88	11.26
10	---	11.69	10.76	11.14	10.30	7.02	9.85	10.27	10.00	10.01	10.89	11.24
11	---	11.70	10.78	11.17	---	7.21	9.89	10.29	10.04	10.09	10.90	11.24
12	---	11.69	10.75	---	---	7.36	9.91	10.24	10.10	10.14	10.95	11.26
13	---	11.70	10.75	---	---	7.56	9.91	10.03	10.13	10.18	10.97	11.27
14	---	11.70	10.75	---	---	7.70	9.91	9.98	10.16	10.30	10.99	11.27
15	---	11.70	10.75	---	---	7.84	9.90	10.01	10.04	10.36	10.98	11.29
16	---	11.70	10.77	---	---	8.01	9.86	10.11	9.44	10.41	11.03	11.29
17	---	11.69	10.77	---	---	8.17	9.83	10.16	9.29	10.50	11.04	11.31
18	---	11.71	10.80	---	---	8.30	9.85	10.25	9.24	10.55	11.07	11.30
19	---	11.72	10.78	11.28	8.30	8.44	9.85	10.31	9.23	10.58	11.08	11.37
20	11.73	11.72	10.81	11.29	8.22	8.60	9.83	9.03	9.27	10.60	11.11	11.39
21	---	11.28	10.83	11.28	7.69	8.91	9.88	9.12	9.37	10.57	11.09	11.41
22	---	11.31	10.83	11.29	7.13	9.00	9.89	9.22	9.42	10.55	11.10	11.43
23	11.86	11.29	10.86	11.32	6.67	9.10	9.88	9.32	9.45	10.45	11.12	11.45
24	11.86	11.24	10.90	11.33	5.69	9.21	9.85	9.41	9.45	10.46	11.16	11.44
25	11.84	11.18	10.92	11.33	4.74	9.26	9.86	9.50	9.47	10.49	11.18	11.43
26	11.81	11.08	10.93	11.32	4.59	9.36	9.84	9.59	9.55	10.53	11.21	11.44
27	11.81	10.99	10.95	11.31	4.63	9.43	9.84	9.66	9.62	10.55	11.24	11.43
28	11.76	10.89	10.95	11.27	4.80	9.45	9.85	9.73	9.69	10.57	11.25	11.46
29	11.76	10.84	10.96	11.29	---	9.49	9.88	9.81	9.74	10.61	11.26	11.46
30	11.74	10.84	10.98	11.26	---	9.57	9.83	9.87	9.83	10.64	11.29	11.46
31	11.75	---	10.98	11.27	---	9.58	---	9.94	---	10.67	11.30	---
MEAN	11.79	11.51	10.83	11.20	8.43	7.79	9.81	9.83	9.72	10.30	11.01	11.34
MAX	11.86	11.74	10.98	11.33	11.24	9.58	9.91	10.31	10.16	10.67	11.30	11.46
MIN	11.73	10.84	10.75	11.00	4.59	4.96	9.60	9.03	9.23	9.88	10.68	11.24

WTR YR 1981 MEAN 10.24 HIGH 4.59 LOW 11.86

BEST DOCUMENT AVAILABLE

412732078034201. Local number, CM 13.

LOCATION.--Lat 41°27'32", long 78°03'42", Hydrologic Unit 02050202, at Sinnemahoning State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Sandstone of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 102 ft (31.1 m), cased to 57 ft (17.4 m), open hole.
DATUM.--Altitude of land-surface datum is 1,010 ft (308 m). Measuring point: Top of casing, 3.07 ft (94 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.35 ft (6.203 m) below land-surface datum, Feb. 20, 1976; lowest, 25.98 ft (7.919 m) below land-surface datum, Sept. 10, 1972.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.93	23.80	23.59	23.19	23.64	22.65	23.81	23.36	23.91	24.09	24.10	24.42
2	23.90	23.94	23.52	23.33	23.45	22.65	23.88	23.49	23.84	24.09	24.04	24.34
3	23.94	23.94	23.62	23.33	23.57	22.84	23.85	23.63	23.76	24.03	23.97	24.27
4	24.01	23.79	23.57	23.49	23.62	22.84	23.85	23.58	23.70	23.96	23.95	24.16
5	24.16	23.75	23.41	23.56	23.67	22.74	23.89	23.54	23.73	23.90	24.10	24.11
6	24.17	23.75	23.34	23.52	23.58	22.86	24.08	23.52	23.66	23.95	24.06	24.11
7	24.10	23.69	23.29	23.36	23.58	23.04	24.09	23.64	23.76	24.03	23.98	23.99
8	24.00	23.75	23.21	23.51	23.47	23.12	24.00	23.70	23.80	24.05	23.94	23.80
9	24.09	23.76	23.08	23.51	23.68	23.14	24.06	23.72	23.61	24.03	24.07	23.86
10	24.09	23.77	23.13	23.56	23.68	23.12	24.08	23.70	23.66	24.09	24.11	23.86
11	23.93	23.81	23.20	23.56	23.58	23.07	23.96	23.61	23.83	24.24	24.09	23.85
12	24.05	23.82	23.18	23.58	23.65	23.03	24.00	23.47	23.85	24.24	24.20	23.91
13	24.11	23.82	23.19	23.55	23.65	22.96	24.02	23.48	23.87	24.20	24.15	23.86
14	24.12	23.71	23.20	23.48	23.49	23.10	23.99	23.45	23.79	24.28	24.15	23.83
15	24.12	23.74	23.22	23.56	23.40	23.08	24.05	23.34	23.79	24.29	24.10	23.87
16	24.12	23.87	23.12	23.55	23.28	23.00	24.00	23.42	23.86	24.28	24.07	23.92
17	24.11	23.86	23.17	23.59	23.14	23.00	23.75	23.55	23.81	24.38	24.15	24.00
18	23.99	23.62	23.12	23.53	23.10	23.04	23.85	23.57	23.83	24.47	24.24	---
19	23.96	23.71	23.43	23.52	22.94	23.04	23.87	23.53	23.94	24.50	24.23	23.83
20	24.00	23.75	23.43	23.61	22.60	23.10	23.81	23.60	23.87	24.40	24.27	23.85
21	24.05	---	23.51	23.58	22.71	23.40	23.88	23.56	---	24.11	24.47	23.93
22	24.23	---	23.51	23.44	22.70	23.39	23.73	23.52	23.72	24.21	24.47	23.92
23	24.30	---	23.38	23.49	22.62	23.33	23.68	23.63	23.86	24.26	24.41	23.96
24	24.30	---	23.22	23.55	22.49	23.33	23.44	23.64	23.90	24.29	24.46	24.02
25	24.14	---	23.36	23.58	22.61	23.70	23.68	23.65	23.82	24.28	24.49	24.07
26	23.83	23.65	23.37	23.44	22.78	23.71	23.75	23.65	23.88	24.28	24.46	24.04
27	23.87	23.61	23.46	23.48	22.82	23.93	23.73	23.64	23.97	24.34	24.55	23.99
28	23.78	23.34	23.47	23.54	22.78	23.98	23.73	23.62	24.07	24.30	24.55	24.03
29	23.86	23.34	23.37	23.73	---	23.82	23.53	23.64	24.09	24.00	24.50	24.05
30	23.87	23.61	23.23	23.76	---	23.70	23.38	23.67	24.06	24.05	24.49	24.07
31	23.78	---	23.23	23.77	---	23.94	---	23.84	---	24.10	24.48	---
MEAN	24.03	23.73	23.33	23.52	23.22	23.21	23.85	23.58	23.84	24.18	24.24	24.00
MAX	24.30	23.94	23.62	23.77	23.68	23.98	24.09	23.84	24.09	24.50	24.55	24.42
MIN	23.78	23.34	23.08	23.19	22.49	22.65	23.38	23.34	23.61	23.90	23.94	23.80

WTR YR 1981 MEAN 23.73 HIGH 22.49 LOW 24.55

411424077462201. Local number, CN 1.

LOCATION.--Lat 41°14'24", long 77°46'22", Hydrologic Unit 02050203, at Sproul State Forest.
Owner: Commonwealth of Pennsylvania.
AQUIFER.--Sandstone of Pocono Formation of Late Mississippian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 78 ft (23.8 m), cased to 38 ft (11.6 m), open hole.
DATUM.--Altitude of land-surface datum is 2,050 ft (625 m). Measuring point: Top of platform, 0.20 ft (6 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--August 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.00 ft (13.411 m) below land-surface datum, Jan 13, 1951; lowest, 57.24 ft (17.447 m) below land-surface datum, Dec. 21, 1964

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.76	53.32	53.31	52.25	52.69	50.09	50.08	49.25	49.37	49.25	49.89	51.02
2	52.81	53.35	53.28	52.28	52.67	50.00	50.09	49.20	49.42	49.28	49.88	51.08
3	52.83	53.34	53.30	52.28	---	49.94	50.06	49.21	49.43	49.28	49.88	51.11
4	52.90	53.30	53.20	52.25	---	49.91	50.03	49.14	49.45	49.27	49.90	51.13
5	52.91	53.33	53.13	52.29	---	49.81	50.02	49.07	49.46	49.22	49.94	51.18
6	52.92	53.33	53.08	52.28	---	49.78	50.08	49.00	49.43	49.22	49.94	51.21
7	52.92	53.32	53.04	52.25	52.66	49.84	50.11	49.03	49.49	49.24	49.94	51.21
8	52.93	53.39	52.99	---	52.55	49.86	50.07	49.04	49.49	49.25	50.01	51.23
9	52.99	53.36	52.94	---	52.54	49.86	50.11	49.02	49.44	49.25	50.09	51.26
10	52.99	53.39	52.88	---	52.54	49.85	50.13	49.11	49.44	49.29	50.11	51 27
11	53.00	53.39	52.85	---	---	49.83	50.07	48.93	49.47	49.34	50.13	51.30
12	53.04	53.39	52.77	---	---	49.81	50.11	48.92	49.46	49.36	50.18	51.33
13	53.07	53.39	52.71	---	---	49.80	50.13	48.90	49.48	49.38	50.23	51.33
14	53.09	53.39	52.70	---	---	49.84	50.04	48.86	49.46	49.46	50.27	51.35
15	53.11	53.41	52.67	---	---	49.81	50.05	48.77	49.44	49.52	50.26	51.39
16	53.13	53.44	52.56	---	---	49.80	49.96	48.82	49.37	49.58	50.35	51.42
17	53.13	53.43	52.56	---	---	49.82	49.79	48.84	49.33	49.64	50.40	51.46
18	53.14	53.43	52.50	---	52.20	49.82	49.78	48.84	49.33	49.72	50.45	51.46
19	53.16	53.44	52.57	---	51.95	49.82	49.74	48.82	49.29	49.75	50.48	51.45
20	53.19	53.44	52.53	52.47	51.48	49.88	49.70	48.84	49.24	49.75	50.55	51.53
21	53.24	53.45	52.52	52.50	51.47	50.01	49.76	48.85	49.24	49.77	50.59	51.54
22	53.29	53.48	52.49	52.48	51.41	50.03	49.70	48.89	49.25	49.80	50.61	---
23	53.30	53.48	52.40	52.51	51.17	50.05	49.60	---	49.27	49.81	50.65	---
24	53.29	53.44	52.36	52.56	50.82	50.07	49.53	---	49.27	49.81	50.71	51.67
25	53.25	53.47	---	52.57	50.68	50.13	49.61	---	49.21	49.83	50.75	51.69
26	53.29	53.47	---	52.55	50.53	50.13	49.61	---	49.21	49.83	50.78	51.70
27	53.30	53.43	---	52.59	50.43	50.20	49.60	---	49.22	49.86	50.84	51.71
28	53.30	53.33	---	52.61	50.26	50.23	49.59	---	49.25	49.85	50.90	51.77
29	53.31	53.34	---	52.71	---	50.15	49.40	49.19	49.21	49.85	50.92	51.79
30	53.31	53.36	52.28	52.70	---	50.10	49.36	49.22	49.21	49.88	50.95	51.81
31	53.27	---	52.27	52.69	---	50.15	---	49.34	---	49.90	50.98	---
MEAN	53.10	53.39	52.77	52.46	51.65	49.95	49.86	49.00	49.35	49.56	50.37	51.41
MAX	53.31	53.48	53.31	52.71	52.69	50.23	50.13	49.34	49.49	49.90	50.98	51.81
MIN	52.76	53.30	52.27	52.25	50.26	49.78	49.36	48.77	49.21	49.22	49.88	51.02

WTR YR 1981 MEAN 51.01 HIGH 48.77 LOW 53.48

410033076264901. Local number, CO 45.

LOCATION.--Lat 41°00'33", long 76°26'49", Hydrologic Unit 02050107, at Bloomsburg.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Bloomsburg Formation of Silurian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 282 ft (85.9 m), cased to 32 ft (9.8 m), open hole.
DATUM.--Altitude of land-surface datum is 690 ft (210 m). Measuring point: Top of plywood cover, 2.60 ft (79 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.1 ft (23.2 m) below land-surface datum, Dec. 22, 1977; lowest, 88.78 ft (27.060 m) below land-surface datum, Oct. 20, 1972 and others.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85.59	85.82	84.93	85.90	86.39	83.53	83.72	83.60	84.80	83.88	83.83	85.37
2	85.62	86.00	84.99	86.13	86.10	83.60	83.61	83.76	84.79	83.89	83.83	85.31
3	85.62	86.04	85.05	86.18	---	83.90	83.62	83.85	84.50	83.57	83.83	85.29
4	85.69	85.97	84.99	86.28	---	83.90	83.61	83.83	84.29	83.57	83.93	85.19
5	85.81	85.94	85.14	---	---	83.83	83.58	83.81	84.22	83.47	84.03	85.18
6	85.82	86.00	85.10	---	---	83.88	83.74	83.88	84.22	83.42	84.08	85.24
7	85.73	85.97	85.07	---	---	84.09	83.82	84.00	84.34	83.37	84.12	85.31
8	85.67	86.16	85.13	---	---	84.19	83.71	84.10	84.43	83.45	84.18	85.31
9	85.98	86.16	85.15	---	---	84.20	83.62	84.12	84.43	83.45	84.23	85.20
10	86.00	---	85.17	---	---	84.18	86.02	84.11	84.26	83.65	84.33	85.27
11	85.96	---	85.16	---	---	84.14	85.43	84.02	84.31	83.82	84.38	85.34
12	85.97	---	85.15	---	84.55	82.94	85.33	83.74	84.38	83.90	84.50	85.41
13	86.04	---	85.15	---	---	82.79	85.38	83.78	84.45	83.90	84.59	85.49
14	86.06	---	85.08	---	---	82.85	85.27	83.79	84.46	84.01	84.66	85.48
15	86.08	86.00	---	---	---	82.85	84.87	83.76	83.81	84.12	84.64	85.51
16	86.10	86.05	---	---	---	82.79	84.79	83.82	83.54	84.19	84.74	85.47
17	86.08	86.12	---	---	---	82.85	84.37	83.92	83.72	84.29	84.80	85.39
18	86.02	86.20	---	---	---	82.90	84.41	83.98	83.83	84.38	84.86	85.34
19	85.98	86.16	---	---	---	82.97	84.46	83.99	83.84	84.43	84.98	85.21
20	86.08	86.00	---	---	84.00	83.20	84.50	84.08	83.83	84.43	85.02	84.91
21	86.16	85.99	---	---	83.83	83.60	84.56	84.14	83.72	83.87	85.09	85.07
22	86.32	85.92	85.81	---	83.83	83.71	84.54	84.16	83.38	83.93	85.14	85.14
23	86.37	85.74	85.61	---	83.85	83.63	84.50	84.30	83.43	84.02	85.12	85.31
24	86.36	85.75	85.84	---	83.70	83.60	83.90	84.38	83.49	84.09	85.18	85.38
25	86.22	85.68	85.93	---	83.31	83.73	84.20	84.38	83.50	84.13	85.30	85.47
26	85.45	84.97	85.97	---	83.52	83.75	84.23	84.49	83.41	84.15	85.38	85.49
27	85.50	---	86.01	---	83.58	83.82	84.23	84.52	83.52	83.58	85.36	85.48
28	85.50	85.02	86.02	---	83.58	83.91	84.24	84.53	83.64	83.57	85.47	85.43
29	85.67	84.95	85.88	86.37	---	83.77	83.67	84.53	83.69	83.57	85.53	85.47
30	85.71	84.61	---	86.43	---	83.63	83.64	84.52	83.73	83.65	85.50	85.53
31	85.68	---	---	86.41	---	83.71	---	84.62	---	83.77	85.50	---
MEAN	85.90	85.80	85.38	86.24	84.19	83.56	84.32	84.08	84.00	83.86	84.71	85.33
MAX	86.37	86.20	86.02	86.43	86.39	84.20	86.02	84.62	84.80	84.43	85.53	85.53
MIN	85.45	84.61	84.93	85.90	83.31	82.79	83.58	83.60	83.38	83.37	83.83	84.91

WTR YR 1981 MEAN 84.67 HIGH 82.79 LOW 86.43

400209077183301. Local number, CU 2.

LOCATION.--Lat 40°02'09", long 77°18'33", Hydrologic Unit 02050305, at Michaux State Forest.
Owner: Commonwealth of Pennsylvania.
AQUIFER.--Metarhyolite of Precambrian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 37 ft (11.3 m), casing information not available.
DATUM.--Altitude of land-surface datum is 953 ft (291 m). Measuring point: Top of casing, 1.5 ft (46 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.51 ft (2.899 m) below land-surface datum, April 18, 1961; lowest, 33.50 ft (10.211 m) below land-surface datum, Feb. 3, 1955.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.51	29.12	28.98	28.79	29.70	21.39	20.22	18.41	19.66	21.48	24.39	27.03
2	27.57	29.15	28.94	28.84	29.71	21.37	20.24	18.51	19.69	21.54	24.48	27.11
3	27.64	29.18	28.91	28.86	29.57	21.37	20.24	18.54	19.71	21.58	24.58	27.18
4	27.73	29.20	28.88	28.88	29.48	21.37	20.23	18.56	19.82	21.60	24.66	27.23
5	27.76	29.22	28.87	28.92	29.44	21.24	20.22	18.58	19.84	21.66	24.76	27.29
6	27.82	29.26	28.84	28.92	29.41	21.20	20.30	18.61	19.87	21.74	24.81	27.33
7	27.87	29.28	28.80	28.95	29.38	21.23	20.31	18.72	19.97	21.84	24.87	27.37
8	27.94	29.31	28.78	28.98	29.34	21.24	20.31	18.81	19.99	21.89	24.97	27.41
9	28.00	29.33	28.75	29.01	29.32	21.24	20.33	18.83	20.07	21.96	25.08	27.48
10	28.06	29.36	28.72	29.04	29.32	21.21	20.36	18.85	20.16	22.06	25.16	27.53
11	28.12	29.37	28.71	29.07	29.28	21.11	20.35	18.81	20.32	22.16	25.22	27.57
12	28.19	29.40	28.70	29.09	28.52	21.06	20.35	18.89	20.36	22.24	25.31	27.62
13	28.26	29.42	28.67	29.11	28.16	20.90	20.34	18.91	20.43	22.30	25.40	27.67
14	28.30	29.44	28.68	29.15	28.06	20.85	20.19	18.91	20.50	22.43	25.47	27.73
15	28.37	29.46	28.66	29.19	28.00	20.85	19.72	18.88	20.52	22.53	25.53	27.77
16	28.43	29.48	28.67	29.21	27.95	20.73	19.42	18.98	20.57	22.64	25.64	27.82
17	28.48	29.51	28.66	29.23	27.88	20.70	19.11	18.98	20.66	22.76	25.75	27.89
18	28.54	29.52	28.66	29.27	27.79	20.63	18.87	19.01	20.71	22.86	25.84	27.93
19	28.59	29.54	28.66	29.30	27.72	20.60	18.83	18.98	20.74	22.96	25.92	27.98
20	28.67	29.55	28.65	29.34	27.60	20.50	18.70	18.98	20.80	23.03	26.01	28.04
21	28.72	29.57	28.67	29.36	26.09	20.48	18.69	19.00	20.85	23.15	26.11	28.09
22	28.75	29.58	28.67	29.41	24.82	20.48	18.67	19.07	---	23.28	26.18	28.16
23	28.82	29.60	28.67	29.43	24.35	20.48	18.55	19.09	---	23.41	26.27	28.18
24	28.88	29.60	28.65	---	22.51	20.44	18.36	19.11	21.14	23.59	---	28.26
25	28.92	---	28.68	---	21.96	20.44	18.46	19.18	21.14	23.68	---	---
26	28.96	29.18	28.69	29.57	21.58	20.46	18.48	19.22	21.23	23.77	26.52	---
27	28.98	29.15	28.71	29.60	21.56	20.42	18.44	19.27	21.28	23.89	26.62	---
28	29.01	29.11	28.72	29.60	21.52	20.31	18.44	19.32	21.34	23.95	26.72	---
29	29.04	29.05	28.73	29.63	---	20.28	18.38	19.39	21.36	24.07	26.78	---
30	29.06	29.03	28.75	29.66	---	20.24	18.41	19.44	21.41	24.20	26.88	---
31	29.10	---	28.78	29.68	---	20.23	---	19.61	---	24.31	26.96	---
MEAN	28.39	29.34	28.74	29.21	27.14	20.81	19.45	18.95	20.51	22.73	25.62	27.65
MAX	29.10	29.60	28.98	29.68	29.71	21.39	20.36	19.61	21.41	24.31	26.96	28.26
MIN	27.51	29.03	28.65	28.79	21.52	20.23	18.36	18.41	19.66	21.48	24.39	27.03

WTR YR 1981 MEAN 24.80 HIGH 18.36 LOW 29.71

402118076462201. Local number, DA 350.

LOCATION.--Lat 40°21'18", long 76°46'22", Hydrologic Unit 02050305, at R. D. 1, Linglestown.
Owner: William R. Miller.
AQUIFER.--Hamburg Sequence of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 225 ft (68.6 m), cased to 19 ft (5.79 m), open hole.
DATUM.--Altitude of land-surface datum is 450 ft (137 m). Measuring point: Top of casing, 1.34 ft (41 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--September 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.15 ft (35 cm) below land-surface datum, June 22, 1972; lowest 6.95 ft (2.118 m) below land-surface datum, Sept. 11, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.05	5.89	5.28	5.61	5.74	4.29	4.64	4.53	5.46	5.74	5.87	5.97
2	6.06	5.91	5.26	5.68	5.70	4.35	4.60	4.65	5.38	5.57	5.86	5.95
3	6.04	5.91	5.23	5.69	4.96	4.47	4.58	4.66	5.33	5.60	5.82	5.91
4	6.07	5.88	5.23	5.70	5.08	4.43	4.56	4.72	5.31	5.55	5.75	5.91
5	6.08	5.92	5.25	5.71	5.13	4.45	4.54	4.77	5.36	5.36	5.79	5.92
6	6.07	5.90	5.27	5.70	5.19	4.47	4.43	4.84	5.38	5.41	5.79	5.91
7	6.07	5.89	5.29	5.72	5.22	4.50	4.44	4.89	5.46	5.51	5.81	5.92
8	6.08	5.91	5.29	5.72	5.26	4.46	4.43	4.93	5.46	5.55	5.79	5.91
9	6.10	5.89	5.30	5.74	5.32	4.33	4.49	4.96	5.51	5.59	5.79	5.94
10	6.07	5.89	5.30	5.73	5.36	4.31	4.53	4.98	5.49	5.68	5.85	5.95
11	6.06	5.89	5.31	5.75	5.16	4.30	4.50	4.91	5.53	5.71	5.84	5.98
12	6.06	5.89	5.32	5.75	4.58	4.30	4.17	4.89	5.55	5.73	5.85	6.01
13	6.06	5.89	5.34	5.74	4.63	4.37	3.93	4.91	5.57	5.74	5.89	6.01
14	6.06	5.86	5.38	5.76	4.70	4.48	3.93	4.93	5.55	5.82	5.90	6.02
15	6.05	5.90	5.39	5.79	4.77	4.45	3.82	4.94	5.40	5.82	5.89	6.01
16	6.05	5.89	5.39	5.78	4.80	4.52	3.89	5.02	5.43	5.83	5.91	5.89
17	6.03	5.90	5.45	5.81	4.80	4.58	3.96	5.07	5.49	5.85	5.98	5.92
18	6.03	5.81	5.45	5.81	4.79	4.59	4.11	5.10	5.55	5.90	6.01	5.90
19	5.97	5.86	5.53	5.80	4.71	4.64	4.16	5.13	5.56	5.89	6.01	5.87
20	6.00	5.86	5.55	5.81	4.47	4.68	4.25	5.18	5.51	5.85	6.04	5.93
21	6.02	5.83	5.57	5.81	4.16	4.76	4.37	5.21	5.48	5.59	6.05	5.96
22	6.03	5.83	5.53	5.78	4.24	4.76	4.40	5.29	5.43	5.69	6.03	5.95
23	6.02	5.77	5.53	5.79	4.18	4.85	4.39	5.31	5.49	5.71	6.05	5.98
24	6.00	5.77	5.56	5.82	3.84	---	4.43	5.36	5.51	5.70	6.07	6.02
25	5.95	5.21	5.59	5.83	---	---	4.49	5.36	5.53	5.69	6.14	6.04
26	5.88	5.23	5.57	5.78	4.13	4.84	4.51	5.40	5.55	5.68	6.14	6.03
27	5.88	5.25	5.57	5.77	4.17	4.84	4.56	5.38	5.60	5.73	6.14	6.02
28	5.87	5.17	5.56	5.74	4.17	4.84	4.62	5.36	5.64	5.74	6.18	6.07
29	5.89	5.21	5.54	5.79	---	4.84	4.53	5.30	5.65	5.75	6.18	6.08
30	5.89	5.26	5.57	5.78	---	4.91	4.51	5.34	5.69	5.80	6.15	6.05
31	5.87	---	5.60	5.79	---	4.73	---	5.42	---	5.84	6.10	---
MEAN	6.01	5.74	5.42	5.76	4.79	4.56	4.36	5.06	5.50	5.70	5.96	5.97
MAX	6.10	5.92	5.60	5.83	5.74	4.91	4.64	5.42	5.69	5.90	6.18	6.08
MIN	5.87	5.17	5.23	5.61	3.84	4.29	3.82	4.53	5.31	5.36	5.75	5.87

WTR YR 1981 MEAN 5.41 HIGH 3.82 LOW 6.18

394731077411701. Local number, FR 332.

LOCATION.--Lat 39°47'31", long 77°41'17", Hydrologic Unit 02070004, near Greencastle.
Owner: Borough of Greencastle.
AQUIFER.--Stonehenge Formation of Early Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 296 ft (90 m), cased to 92 ft (28 m), open hole.
DATUM.--Altitude of land-surface datum is 730 ft (225 m). Measuring point: Top of casing, 1 ft (30 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--March 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.30 ft (3.749 m) below land-surface datum, Sept. 27, 1975, lowest, 36.68 ft (11.18 m) below land-surface datum, Sept. 6, 1976.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.63	33.32	30.73	30.64	34.55	24.93	30.09	27.83	29.81	27.60	29.23	31.04
2	33.63	33.52	30.73	31.62	34.13	25.32	30.29	27.49	29.85	27.61	29.43	31.21
3	33.59	33.62	30.60	31.80	30.15	25.48	30.48	27.87	29.92	27.36	29.56	31.43
4	33.54	33.66	30.61	31.64	30.90	25.58	30.72	28.14	29.75	27.69	29.73	31.60
5	33.32	33.66	30.70	31.17	30.83	25.70	31.12	28.23	28.79	27.92	29.93	31.63
6	33.35	33.61	30.71	30.15	30.93	25.77	31.24	28.33	29.32	28.22	30.06	31.73
7	33.35	33.53	30.68	31.18	31.20	26.02	31.28	28.52	29.58	28.47	30.15	31.83
8	33.38	33.42	30.72	31.61	31.32	26.47	31.41	28.64	29.72	28.57	30.36	29.98
9	33.40	33.35	30.83	31.65	31.19	26.77	31.33	28.76	29.89	28.79	30.53	30.02
10	33.25	33.63	30.80	31.68	32.15	26.97	31.36	28.84	29.94	29.01	30.62	30.06
11	33.24	33.90	31.07	32.17	32.12	27.14	31.41	28.79	29.93	29.20	30.69	30.13
12	33.31	33.97	31.33	32.11	29.64	27.15	31.01	28.64	30.03	29.36	30.86	30.20
13	33.61	33.95	31.53	31.06	29.44	27.23	28.01	28.19	30.15	29.41	30.97	30.21
14	33.73	33.95	31.74	30.14	28.23	27.36	25.97	28.49	29.90	29.58	31.06	30.27
15	33.88	33.89	31.86	31.02	27.11	27.52	23.32	28.65	22.20	29.85	31.13	30.29
16	33.98	33.85	32.00	32.25	26.50	27.54	22.64	28.39	24.48	30.01	31.23	30.28
17	34.03	33.81	32.08	32.60	26.68	27.62	22.46	28.45	25.38	30.05	31.34	30.26
18	33.93	33.61	32.04	32.99	27.43	27.78	23.00	28.73	25.99	30.17	31.41	30.36
19	33.84	31.41	32.07	32.37	28.27	27.99	23.54	28.84	26.40	30.30	31.36	30.45
20	33.82	32.35	32.08	33.03	28.32	28.38	24.16	28.85	26.50	30.30	31.37	30.57
21	33.84	33.12	31.90	33.45	26.26	28.61	24.70	28.92	26.17	30.23	31.38	30.67
22	33.79	33.64	31.00	33.48	26.35	28.88	25.19	29.03	26.19	30.41	31.40	30.73
23	33.76	33.67	29.88	33.61	26.15	29.04	25.48	29.17	25.58	30.56	31.60	30.81
24	34.03	33.70	29.91	33.87	24.41	29.23	25.90	29.22	26.06	30.54	31.66	30.86
25	34.08	28.79	30.23	33.91	23.45	29.47	26.38	29.30	26.20	30.63	31.73	30.80
26	31.54	29.74	29.82	34.03	23.40	29.71	26.60	29.45	26.16	30.63	31.66	30.83
27	32.06	30.23	28.37	34.23	23.21	29.73	26.89	29.54	26.65	27.71	31.65	30.90
28	32.56	30.42	28.12	34.40	24.35	29.66	27.25	29.57	26.96	27.82	31.65	30.95
29	32.81	30.66	29.32	34.64	---	29.81	27.49	29.50	27.21	27.23	31.66	30.97
30	32.93	30.73	30.60	34.84	---	29.79	27.76	29.59	27.42	28.29	31.67	30.98
31	33.15	---	31.12	34.84	---	29.93	---	29.71	---	28.86	31.51	---
MEAN	33.43	32.82	30.81	32.52	28.52	27.70	27.62	28.76	27.74	29.11	30.92	30.74
MAX	34.08	33.97	32.08	34.84	34.55	29.93	31.41	29.71	30.15	30.63	31.73	31.83
MIN	31.54	28.79	28.12	30.14	23.21	24.93	22.46	27.49	22.20	27.23	29.23	29.98

WTR YR 1981 MEAN 30.07 HIGH 22.20 LOW 34.84

400302078090401. Local number, FU 93.

LOCATION.--Lat 40°03'02", long 78°09'04", Hydrologic Unit 02050304, at Buchanan State Forest. Owner: Commonwealth of Pennsylvania.
AQUIFER.--Sandstone of Pocono Formation of Early Mississippian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 191 ft (58.2 m), cased to 45 ft (13.7 m), open hole.
DATUM.--Altitude of land-surface datum is 1,180 ft (360 m). Measuring point: Top of casing, 2.0 ft (61 cm) above land-surface datum.
REMARKS.--Water level above and below (-) land surface datum.
PERIOD OF RECORD.--July 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.00 ft (61 cm) above land-surface datum, Feb. 22, 1971; lowest, -4.46 ft (-1.359 m) below land-surface datum, Sept. 12, 1966.

WATER LEVEL, IN FEET ABOVE OR BELOW (-) LAND SURFACE DATUM , WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-2.26	-2.33	-1.30	-1.77	-2.18	.77	-0.52	.35	-0.53	-1.08	-1.89	-2.39
2	-2.26	-2.40	-1.28	-1.90	-2.00	.67	-0.55	.35	-0.54	-1.12	-1.87	-2.32
3	-2.32	-2.40	-1.33	-1.91	-1.47	.47	-0.53	.34	-0.55	-0.90	-1.83	-2.26
4	-2.38	-2.36	-1.28	-2.00	-1.14	.47	-0.51	.34	-0.49	-0.62	-1.81	-2.22
5	-2.43	-2.41	-1.24	-1.98	-1.03	.39	-0.48	.32	-0.13	-0.04	-1.84	-2.19
6	-2.45	-2.40	-1.27	-1.94	-1.03	.24	-0.57	.27	.15	.07	-1.85	-2.20
7	-2.42	-2.39	-1.29	-1.97	-1.03	.06	-0.58	.11	.03	-0.10	-1.84	-2.21
8	-2.42	-2.44	-1.28	-2.01	-1.10	-0.01	-0.50	.02	-0.04	-0.21	-1.87	-2.19
9	-2.50	-2.44	-1.27	-2.00	-1.28	-0.03	-0.50	.00	-0.14	-0.36	-1.96	-2.10
10	-2.49	-2.43	-1.27	-2.01	-1.30	.03	-0.53	.00	-0.16	-0.55	-2.04	-2.12
11	-2.49	-2.43	-1.22	---	-1.14	.11	-0.42	.11	-0.18	-0.71	-2.05	-2.16
12	-2.55	-2.43	-1.20	---	-0.68	.20	-0.02	.87	-0.23	-0.81	-2.09	-2.19
13	-2.57	-2.43	-1.20	---	-0.46	.30	1.16	1.18	-0.33	-0.91	-2.14	-2.22
14	-2.57	-2.38	-1.28	---	-0.33	.17	1.38	1.18	-0.18	-1.03	-2.16	-2.23
15	-2.57	-2.40	-1.28	---	-0.37	.18	1.39	1.10	.79	-1.16	-2.14	-2.24
16	-2.58	-2.44	-1.29	---	-0.42	.13	1.39	.94	.83	-1.23	-2.16	-2.18
17	-2.58	-2.44	-1.42	---	-0.50	.10	1.39	.84	.58	-1.33	-2.23	-2.09
18	-2.55	-2.27	-1.46	---	-0.51	.07	1.39	.76	.41	-1.43	-2.26	-2.10
19	-2.56	-2.24	-1.65	---	-0.51	.01	1.39	.69	.23	-1.48	-2.26	-2.07
20	-2.58	-2.21	-1.71	---	-0.31	-0.08	1.39	.45	.09	-1.46	-2.28	-2.08
21	-2.61	-2.23	-1.71	---	.49	-0.24	1.39	.34	-0.03	-1.50	-2.34	-2.17
22	-2.68	-2.24	-1.62	-2.05	.61	-0.28	1.39	.25	-0.16	-1.60	-2.39	-2.17
23	-2.68	-2.20	-1.62	-2.11	.78	-0.22	1.01	.13	-0.32	-1.64	-2.39	-2.26
24	-2.68	-1.78	-1.66	-2.13	1.28	-0.27	.92	.02	-0.43	-1.68	-2.41	-2.25
25	-2.61	-1.66	-1.74	-2.14	1.18	-0.40	.71	-0.06	-0.46	-1.69	-2.51	-2.31
26	-2.30	-1.44	-1.74	-2.12	1.09	-0.39	.62	-0.17	-0.62	-1.69	-2.53	-2.31
27	-2.33	-1.34	-1.78	-2.07	.96	-0.47	.52	-0.21	-0.72	-1.73	-2.55	-2.31
28	-2.26	-1.24	-1.78	-2.10	.96	-0.51	.51	-0.21	-0.85	-1.76	-2.60	-2.39
29	-2.30	-1.20	-1.77	-2.19	---	-0.42	.41	-0.21	-0.95	-1.73	-2.61	-2.42
30	-2.34	-1.26	-1.74	-2.20	---	-0.40	.35	-0.25	-0.99	-1.82	-2.61	-2.42
31	-2.31	---	-1.76	-2.20	---	-0.59	---	-0.39	---	-1.88	-2.52	---
MEAN	-2.47	-2.14	-1.47	-2.04	-0.41	.00	.43	.31	-0.20	-1.13	-2.19	-2.23
MAX	-2.26	-1.20	-1.20	-1.77	1.28	.77	1.39	1.18	.83	.07	-1.81	-2.07
MIN	-2.68	-2.44	-1.78	-2.20	-2.18	-0.59	-0.58	-0.39	-0.99	-1.88	-2.61	-2.42

WTR YR 1981 MEAN -1.11 MAX 1.39 MIN -2.68

401843078075401. Local number, HU 301.

LOCATION.--Lat 40°18'43", long 78°07'54", Hydrologic Unit 02050303, at Trough Creek State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Burgoon Sandstone of Early Mississippian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 105 ft (32 m), cased to 18 ft (5.5 m), open hole.
DATUM.--Altitude of land-surface datum is 970 ft (296 m). Measuring point: Top of casing, 3.30 ft (1.01 m)
REMARKS.--None.
PERIOD OF RECORD.--August 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.82 ft (14.880 m) below land-surface datum, June 23, 1972; lowest, 55.96 ft (17.057 m) below land-surface datum, Aug. 28, 30, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.45	55.29	55.00	55.13	55.54	53.62	54.64	54.32	54.40	55.04	55.48	55.73
2	55.41	55.40	54.95	55.25	55.27	53.74	54.68	54.43	54.41	55.10	55.41	55.63
3	55.47	55.41	55.11	55.30	55.13	53.95	54.64	54.52	54.37	55.04	55.36	55.63
4	55.50	55.30	55.05	55.41	55.11	53.92	54.61	54.56	54.31	54.87	55.36	55.56
5	55.59	55.36	55.00	55.40	55.10	53.97	54.60	54.55	54.29	54.77	55.36	55.50
6	55.58	55.37	55.00	55.27	54.99	54.12	54.72	54.57	54.23	54.80	55.37	55.49
7	55.47	55.35	54.99	55.37	54.89	54.27	54.73	54.66	54.34	54.87	55.37	55.46
8	55.44	55.45	54.94	55.46	54.74	54.33	54.66	54.70	54.35	54.89	55.42	55.35
9	55.50	55.46	54.97	55.42	54.89	54.36	54.65	54.69	54.40	54.90	55.54	55.35
10	55.51	55.51	54.99	55.44	54.91	54.31	54.71	54.64	54.43	54.97	55.64	55.41
11	55.44	55.52	55.00	55.42	54.61	54.22	54.62	54.51	54.57	55.07	55.61	55.46
12	55.52	55.52	55.00	55.42	54.59	54.16	54.52	54.25	54.63	55.11	55.63	55.45
13	55.56	55.54	54.96	55.34	54.57	54.17	54.37	54.08	54.68	55.10	55.69	55.46
14	55.57	55.42	55.00	55.41	54.55	54.29	54.06	53.97	54.47	55.14	55.71	55.44
15	55.53	55.46	55.03	55.50	54.55	54.24	53.70	53.87	54.37	55.24	55.65	55.44
16	55.53	55.52	54.96	55.49	54.53	54.25	53.55	53.90	54.31	55.27	55.64	55.33
17	55.52	55.53	55.05	55.48	54.59	54.27	53.35	53.98	54.40	55.33	55.72	55.23
18	55.43	55.41	55.06	55.45	54.60	54.28	53.44	54.00	54.47	55.35	55.77	55.23
19	55.44	55.51	55.27	55.40	54.58	54.32	53.52	54.00	54.49	55.36	55.78	55.16
20	55.46	55.45	55.33	55.44	54.40	54.38	53.60	54.07	54.48	55.24	55.78	55.15
21	55.53	55.46	55.31	55.38	53.97	54.59	53.77	54.10	54.50	55.23	55.84	55.26
22	55.69	55.52	55.20	55.27	53.89	54.66	53.78	54.15	54.51	55.36	55.87	55.23
23	55.69	55.52	55.16	55.36	53.73	54.59	53.69	54.23	54.65	55.42	55.84	55.35
24	55.71	55.18	55.21	55.40	53.18	54.63	53.75	54.30	54.68	55.45	55.78	55.36
25	55.53	55.18	55.26	55.42	53.19	54.65	53.98	54.33	54.67	55.45	55.91	55.39
26	55.27	55.17	55.27	55.36	53.36	54.66	54.08	54.40	54.77	55.43	55.93	55.35
27	55.32	55.06	55.27	55.37	53.44	54.71	54.15	54.28	54.88	55.43	55.90	55.30
28	55.21	54.88	55.29	55.42	53.42	54.73	54.15	54.20	54.95	55.41	55.96	55.42
29	55.30	54.90	55.15	55.57	---	54.62	54.21	54.19	55.00	55.35	55.95	55.47
30	55.35	54.96	55.17	55.62	---	54.60	54.27	54.20	55.00	55.45	55.96	55.46
31	55.25	---	55.15	55.61	---	54.74	---	54.27	---	55.50	55.86	---
MEAN	55.48	55.35	55.10	55.41	54.44	54.33	54.17	54.29	54.53	55.19	55.68	55.40
MAX	55.71	55.54	55.33	55.62	55.54	54.74	54.73	54.70	55.00	55.50	55.96	55.73
MIN	55.21	54.88	54.94	55.13	53.18	53.62	53.35	53.87	54.23	54.77	55.36	55.15

WTR YR 1981 MEAN 54.95 HIGH 53.18 LOW 55.96

402411077374801. Local number, JU 351.

LOCATION.--Lat 40°24'11", long 77°37'48", Hydrologic Unit 02050304, at State Game Land Number 215. Owner: U.S. Geological Survey.
AQUIFER.--Shale of Mahantango Formation of Middle Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 110 ft (33.5 m), cased to 18 ft (5.5 m), open hole.
DATUM.--Altitude of land-surface datum is 635 ft (194 m). Measuring point: Top of plywood cover, 3.55 ft (1.08 m) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.20 ft (3.41 m) below land-surface datum, May 15, 1978; lowest, 15.40 ft (4.694 m) below land-surface datum, Sept. 15, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.14	14.74	13.65	14.00	---	12.99	13.42	13.21	12.97	14.00	14.13	14.94
2	15.13	14.80	13.64	14.08	---	13.12	13.42	13.27	13.06	13.87	14.16	14.88
3	15.16	14.81	13.62	14.10	---	13.26	13.40	13.34	13.07	13.59	14.23	14.78
4	15.16	14.77	13.63	14.16	---	13.27	13.41	13.35	12.77	13.46	14.24	14.72
5	15.21	14.82	13.69	14.16	---	13.26	13.40	13.35	12.85	13.35	14.13	14.63
6	15.20	14.83	13.74	14.10	---	13.33	13.43	13.34	12.91	13.40	14.03	14.53
7	15.16	14.82	13.77	14.16	---	13.37	13.45	13.37	13.03	13.49	13.99	14.44
8	15.16	14.92	13.77	14.16	---	13.38	13.40	13.38	13.08	13.53	14.00	14.36
9	15.22	14.92	13.78	14.16	---	13.35	13.35	13.37	13.13	13.56	14.09	14.15
10	15.20	14.88	13.76	14.16	---	13.23	13.39	13.34	13.17	13.64	14.19	14.10
11	15.18	14.87	13.74	14.16	---	13.14	13.31	13.24	13.22	13.76	14.26	14.10
12	15.22	14.86	13.74	14.16	---	13.10	13.21	12.97	13.30	13.87	14.35	14.11
13	15.22	14.87	13.72	14.16	---	13.13	12.80	12.90	13.40	13.98	14.48	14.15
14	15.24	14.81	13.74	14.16	---	13.22	12.48	12.95	13.36	14.11	14.59	14.17
15	15.21	14.82	13.77	14.17	---	13.19	12.38	13.01	13.32	14.27	14.63	14.20
16	15.20	14.83	13.79	14.17	---	13.25	12.48	12.96	13.35	14.38	14.67	14.19
17	15.19	14.84	13.86	14.17	---	13.28	12.58	13.05	13.47	14.47	14.75	14.14
18	15.16	14.76	13.88	14.17	---	13.30	12.78	13.12	13.58	14.56	14.80	14.14
19	15.17	14.77	14.01	14.17	---	13.33	12.89	13.16	13.66	14.63	14.82	14.09
20	15.19	14.71	14.03	14.16	---	13.37	12.98	13.24	13.71	14.61	14.84	14.08
21	15.21	14.68	14.04	14.17	---	13.46	13.10	13.29	13.71	14.42	14.89	14.20
22	15.27	14.64	13.90	14.16	---	13.49	13.12	13.32	13.71	14.33	14.93	14.24
23	15.27	14.60	13.96	14.27	12.12	13.45	13.07	13.36	13.84	14.33	14.95	14.32
24	15.27	14.20	13.99	14.27	11.86	13.47	13.02	13.38	13.91	14.35	14.97	14.39
25	15.20	13.71	14.02	14.27	12.20	13.50	13.15	13.39	13.93	14.38	15.03	14.46
26	14.81	13.52	14.02	14.21	12.45	13.50	13.19	13.42	13.79	14.40	15.06	14.50
27	14.73	13.52	14.00	14.19	12.66	13.51	13.21	13.32	13.78	14.12	15.06	14.52
28	14.63	13.50	13.99	14.19	12.79	13.52	13.21	13.30	13.82	13.95	15.11	14.59
29	14.67	13.46	13.90	14.25	---	13.47	13.19	12.80	13.85	13.90	15.11	14.69
30	14.71	13.56	13.94	14.27	---	13.43	13.20	12.54	13.91	13.98	15.09	14.69
31	14.70	---	13.98	14.26	---	13.48	---	12.77	---	14.06	14.99	---
MEAN	15.10	14.53	13.84	14.17	12.35	13.33	13.11	13.19	13.42	14.02	14.60	14.38
MAX	15.27	14.92	14.04	14.27	12.79	13.52	13.45	13.42	13.93	14.63	15.11	14.94
MIN	14.63	13.46	13.62	14.00	11.86	12.99	12.38	12.54	12.77	13.35	13.99	14.08

WTR YR 1981 MEAN 13.95 HIGH 11.86 LOW 15.27

400506076235201. Local number, LN 514.

LOCATION.--Lat 40°05'06", long 76°23'52", Hydrologic Unit 02050306, near Landisville.
Owner: Benjamin Landis.
AQUIFER.--Shale and limestone of Kinzers Formation of Early Cambrian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 260 ft (79.2 m), casing information not available.
DATUM.--Altitude of land-surface datum is 415 ft (126 m). Measuring point: Top of casing, 1 ft (30 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--January 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.92 ft (5.16 m) below land-surface datum, Mar. 28, 1978; lowest, 35.47 ft (10.811 m) below land-surface datum, Nov. 15, 1967.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.25	33.32	33.22	33.34	33.39	33.16	33.36	33.20	33.36	33.28	33.32	33.33
2	33.25	33.33	33.24	33.44	33.38	33.18	33.29	33.19	33.27	33.21	33.30	33.33
3	33.23	33.33	33.25	33.35	33.34	33.22	33.27	33.21	33.28	33.24	33.28	33.33
4	33.26	33.33	33.26	33.35	33.34	33.23	33.28	33.21	33.21	33.21	33.28	33.33
5	33.26	33.33	33.26	33.35	33.36	33.24	33.29	33.23	33.24	32.71	33.29	33.33
6	33.28	33.34	33.28	33.36	33.35	33.24	33.25	33.22	33.24	32.91	33.28	33.33
7	33.28	33.34	33.28	33.35	33.35	33.25	33.27	33.22	33.24	33.02	33.28	33.33
8	33.27	33.35	33.28	33.35	33.35	33.27	33.27	33.26	33.24	33.06	33.29	33.32
9	33.27	33.33	33.28	33.34	33.37	33.25	33.26	33.22	33.24	33.11	33.31	33.36
10	33.28	33.34	33.28	33.44	33.36	33.25	33.27	33.22	33.22	33.14	33.32	33.35
11	33.27	33.35	33.28	33.39	33.30	33.24	33.25	33.18	33.22	33.16	33.31	33.35
12	33.28	33.34	33.28	33.34	33.15	33.25	33.24	33.16	33.25	33.17	33.31	33.35
13	33.28	33.33	33.30	33.36	33.19	33.25	33.23	33.18	33.24	33.18	33.32	33.35
14	33.28	33.34	33.30	33.67	33.25	33.28	33.21	33.19	33.24	33.20	33.34	33.39
15	33.30	33.34	33.34	33.39	33.24	33.33	33.05	33.20	33.19	33.21	33.35	33.32
16	33.29	33.34	33.39	33.39	33.25	33.27	33.00	33.11	33.20	33.22	33.33	33.34
17	33.28	33.34	33.33	33.39	33.27	33.26	33.06	33.15	33.21	33.23	33.33	33.36
18	33.30	33.31	33.32	33.39	33.28	33.36	33.11	33.18	33.23	33.25	33.33	33.37
19	33.27	33.25	33.34	33.40	33.28	33.29	33.14	33.18	33.24	33.33	33.34	33.37
20	33.30	33.30	33.33	33.40	33.28	33.28	33.14	33.21	33.21	33.28	33.32	33.38
21	33.30	33.32	33.33	33.40	33.21	33.31	33.16	33.20	33.23	33.25	33.32	33.38
22	33.32	33.34	33.31	33.41	33.15	33.31	33.17	33.23	33.19	33.25	33.33	33.39
23	33.31	33.34	33.32	33.52	33.15	33.31	33.16	33.24	33.14	33.29	33.33	33.36
24	33.33	33.34	33.32	33.54	32.94	33.31	33.16	33.24	33.18	33.27	33.35	---
25	33.32	32.85	33.33	33.42	32.88	33.31	33.19	33.25	33.18	33.28	33.35	---
26	33.24	33.03	33.33	33.37	32.98	33.32	33.19	33.25	33.19	33.30	33.30	---
27	33.26	33.09	33.32	33.38	33.08	33.27	33.18	33.24	33.24	33.28	33.35	---
28	33.29	33.12	33.32	33.38	33.11	33.27	33.18	33.23	33.23	33.30	33.42	---
29	33.38	33.17	33.32	33.40	---	33.26	33.21	33.26	33.28	33.29	33.40	---
30	33.39	33.20	33.32	33.42	---	33.26	33.20	33.26	33.26	33.30	33.34	---
31	33.31	---	33.34	33.41	---	33.37	---	33.36	---	33.31	33.34	---
MEAN	33.29	33.28	33.30	33.40	33.24	33.27	33.20	33.22	33.23	33.20	33.32	33.35
MAX	33.39	33.35	33.39	33.67	33.39	33.37	33.36	33.36	33.36	33.33	33.42	33.39
MIN	33.23	32.85	33.22	33.34	32.88	33.16	33.00	33.11	33.14	32.71	33.28	33.32

WTR YR 1981 MEAN 33.27 HIGH 32.71 LOW 33.67

411800076162501. Local number, LU 243.

LOCATION.--lat 41°18'00", long 76°16'25", Hydrologic Unit 02050107, at Ricketts Glen Park, Fairmount Township. Owner: Commonwealth of Pennsylvania.
AQUIFER.--Sandstone of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 160 ft (48.8 m), cased to 40 ft (12.2 m), open hole.
DATUM.--Altitude of land-surface datum is 1,266 ft (386 m). Measuring point: Top of casing, 1.3 ft (40 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--November 1948 to July 1950, July 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.08 ft (10.997 m) below land-surface datum, March 31, 1950; lowest, 58.70 ft (17.891 m) below land-surface datum, Oct. 5, 1957.

DEPTH BELOW LAND SURFACE (WATER LEVFL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	56.77	55.94	55.70	56.38	50.75	53.85	52.32	53.41	52.96	54.62	---
2	---	56.85	55.91	55.77	56.22	50.97	53.80	52.33	53.34	52.90	54.90	55.60
3	---	56.80	55.78	55.80	55.79	51.26	53.79	52.40	53.40	53.30	54.64	55.50
4	---	56.86	55.65	55.85	55.21	51.39	53.80	52.26	53.40	53.19	54.72	55.53
5	---	56.82	55.44	55.94	54.78	51.54	53.73	52.26	53.49	53.27	54.73	55.47
6	---	56.87	55.38	56.14	54.54	51.74	53.62	52.25	53.60	53.34	55.24	55.66
7	---	56.82	55.37	55.88	54.34	51.94	53.57	52.34	53.83	53.55	54.65	55.70
8	---	56.88	55.44	55.92	54.39	52.12	53.47	52.42	53.80	53.65	55.10	55.51
9	---	56.84	55.57	55.96	54.27	52.26	53.35	52.61	53.71	53.65	55.05	55.19
10	---	56.89	55.36	55.97	54.28	52.35	53.36	52.64	53.52	53.73	55.01	55.09
11	---	56.92	55.27	55.99	54.22	52.44	54.06	52.63	53.65	54.07	54.93	54.90
12	---	56.83	55.23	56.06	53.52	52.78	53.40	52.47	53.83	54.21	54.88	54.98
13	---	56.86	55.18	56.03	52.71	52.66	53.36	52.34	53.82	54.16	55.06	55.09
14	---	56.83	55.19	56.06	52.23	52.78	53.33	52.17	53.78	54.14	54.82	55.12
15	---	56.78	55.24	56.10	51.97	53.10	53.15	52.04	53.58	55.09	55.51	55.00
16	---	56.84	55.14	56.40	51.90	52.93	52.96	52.09	52.60	56.99	55.24	55.00
17	---	56.93	55.27	56.15	52.24	52.98	52.71	52.16	51.84	54.69	55.09	55.00
18	---	56.77	55.27	56.15	51.98	53.04	52.57	52.08	51.61	54.77	55.10	55.01
19	---	56.85	55.32	56.20	52.69	53.10	52.54	52.08	52.20	54.89	55.12	55.02
20	---	56.90	55.34	56.24	51.86	53.20	52.58	52.15	51.64	54.64	55.10	55.17
21	---	56.88	55.36	56.23	51.19	53.35	52.55	52.21	52.09	54.37	55.16	55.14
22	---	56.91	55.48	56.23	50.52	53.49	52.64	52.28	51.80	54.26	55.32	55.11
23	56.84	56.90	55.30	56.20	50.12	53.62	52.54	52.63	52.26	54.30	55.38	55.15
24	57.02	56.86	55.35	56.23	49.93	53.55	52.56	53.15	52.09	54.35	55.29	55.19
25	56.84	56.43	55.38	56.31	49.87	53.62	52.60	53.17	52.14	54.43	55.26	55.36
26	56.64	56.38	55.42	56.24	50.06	53.68	52.64	53.17	52.12	54.43	55.36	55.36
27	56.63	56.17	55.52	56.25	50.30	53.96	52.64	52.93	52.73	54.33	55.49	55.41
28	56.65	56.01	55.82	56.27	50.48	53.95	52.57	52.99	52.68	54.30	55.41	55.31
29	56.67	55.91	55.54	56.33	---	53.98	52.50	53.03	52.68	54.36	55.47	55.36
30	56.68	55.99	55.75	56.57	---	53.84	52.39	53.22	52.81	54.35	55.79	55.36
31	56.68	---	55.76	56.48	---	53.88	---	53.29	---	54.57	55.41	---
MEAN	56.74	56.71	55.45	56.12	52.79	52.78	53.09	52.52	52.92	54.17	55.12	55.25
MAX	57.02	56.93	55.94	56.57	56.38	53.98	54.06	53.29	53.83	56.99	55.79	55.70
MIN	56.63	55.91	55.14	55.70	49.87	50.75	52.39	52.04	51.61	52.90	54.62	54.90

WTR YR 1981 MEAN 54.34 HIGH 49.87 LOW 57.02

412427076594401. Local number, LY 112.

LOCATION.--lat 41°24'27", long 76°59'44", Hydrologic Unit 02050206, at State Game Land Number 133, near Trout Run. Owner: U.S. Geological Survey.
AQUIFER.--Shale of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 200 ft (61 m), cased to 23 ft (7.0 m), open hole.
DATUM.--Altitude of land-surface datum is 1,400 ft (427 m). Measuring point: Top of plywood cover, 3.07 ft (94 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.10 ft (23.195 m) below land-surface datum, June 23, 1972; lowest, 95.32 ft (29.054 m) below land-surface datum, Oct. 23, 24, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.62	94.51	90.07	91.62	93.41	85.35	89.98	87.39	89.49	89.61	90.59	92.59
2	94.62	94.57	89.94	91.75	93.26	85.83	89.61	86.78	89.56	89.76	90.71	92.65
3	94.67	94.59	89.75	91.84	92.72	86.35	89.47	86.46	89.55	89.84	90.73	92.73
4	94.74	94.59	89.57	91.99	91.52	86.66	89.22	86.07	89.48	89.81	90.75	92.77
5	94.80	94.61	89.26	92.14	90.77	86.82	89.02	85.97	89.33	89.65	90.82	92.81
6	94.82	94.62	89.20	92.14	90.52	87.14	88.89	86.23	89.29	89.57	90.93	92.86
7	94.82	94.63	89.34	92.19	90.25	87.55	88.96	86.63	89.39	89.06	90.99	92.90
8	94.83	94.74	89.43	92.34	90.19	87.86	88.90	87.00	89.52	88.55	91.04	92.86
9	94.89	94.74	89.61	92.40	90.44	88.02	88.86	87.25	89.55	88.44	91.12	92.73
10	94.91	94.71	89.77	92.50	90.61	88.11	88.95	87.41	89.61	88.56	91.27	92.63
11	94.90	94.62	89.79	92.54	90.59	88.17	88.94	87.41	89.78	88.78	91.33	92.42
12	94.97	94.52	89.79	92.62	89.11	88.27	88.95	87.35	89.90	88.96	91.33	92.33
13	94.98	94.46	89.66	92.64	87.85	88.38	89.10	86.93	90.03	89.05	91.35	92.36
14	95.01	94.40	89.77	92.71	87.32	88.58	89.10	86.45	90.07	89.18	91.44	92.37
15	95.03	94.36	89.82	92.81	87.29	88.63	88.96	86.39	90.07	89.37	91.52	92.44
16	95.07	94.32	89.88	92.88	87.38	88.68	88.42	86.69	89.54	89.57	91.53	92.54
17	95.07	94.33	90.07	92.99	87.41	88.75	87.93	87.02	88.78	89.72	91.55	92.64
18	95.07	94.29	90.18	93.02	87.41	88.98	87.54	87.24	88.76	89.91	91.65	92.70
19	95.10	94.39	90.49	93.09	87.26	89.05	87.58	87.38	88.86	90.09	91.76	92.72
20	95.16	94.45	90.75	93.24	86.96	89.17	87.60	87.58	88.95	90.10	91.81	92.78
21	95.19	94.49	90.91	93.23	85.66	89.48	87.77	87.76	89.13	90.12	91.84	92.92
22	95.26	94.57	90.95	93.24	84.58	89.70	87.87	87.93	89.22	90.11	91.95	92.97
23	95.32	94.57	90.89	93.29	84.40	89.78	87.85	88.13	89.30	89.96	92.02	93.10
24	95.32	94.52	90.89	93.37	81.79	89.87	87.75	88.32	89.31	89.81	92.07	93.26
25	95.31	94.03	91.12	93.42	82.91	89.99	87.97	88.47	89.31	89.79	92.24	93.34
26	95.08	93.22	91.23	93.42	83.75	90.09	88.21	88.65	89.27	89.85	92.29	93.38
27	94.91	92.06	91.42	93.43	84.40	90.14	88.39	88.78	89.24	89.91	92.34	93.39
28	94.75	91.42	91.46	93.43	84.74	90.22	88.44	88.89	89.30	90.07	92.44	93.51
29	94.63	90.90	91.46	93.45	---	90.22	88.44	88.99	89.38	90.15	92.48	93.57
30	94.61	90.34	91.52	93.44	---	90.16	88.22	89.10	89.45	90.23	92.50	93.61
31	94.57	---	91.60	93.44	---	90.07	---	89.31	---	90.44	92.55	---
MEAN	94.94	94.02	90.31	92.79	88.02	88.58	88.56	87.48	89.41	89.61	91.58	92.86
MAX	95.32	94.74	91.60	93.45	93.41	90.22	89.98	89.31	90.07	90.44	92.55	93.61
MIN	94.57	90.34	89.20	91.62	81.79	85.35	87.54	85.97	88.76	88.44	90.59	92.33

WTR YR 1981 MEAN 90.70 HIGH 81.79 LOW 95.32

404210077331001. Local number, MF 1.

LOCATION.--Lat 40°42'10", long 77°33'10", Hydrologic Unit 02050304, at village of Naginey.
Owner: Charles C. Naginey.
AQUIFER.--Limestone of Nealmont Formation of Middle Ordovician age.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in (91 cm), depth 28 ft (8.5 m), cased with stone.
DATUM.--Altitude of land-surface datum is 680 ft (207 m). Measuring point: Top of wooden cover at land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--May 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.03 ft (1.228 m) below land-surface datum, June 26, 1972; lowest measured, 24.94 ft (7.602 m) below land-surface datum, Sept. 10, 1973.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	21.96	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	14.94	---	---	---	---	---	---
3	---	20.95	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	17.92	17.10	---	23.92	---
5	---	---	---	23.60	---	---	---	---	---	---	---	---
6	23.97	---	---	---	---	---	---	---	---	16.95	---	---
7	---	---	---	---	---	---	17.97	---	---	---	---	20.80
8	---	---	22.98	---	---	---	---	---	17.96	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	23.93	---	---	---	16.97	---	---	---	---	21.98	---
11	---	---	---	---	5.95	---	---	17.60	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	23.98	---	---	23.97	---	---	17.10	---	---	17.98	---	---
14	---	---	---	---	---	---	---	---	---	---	---	22.60
15	---	---	23.20	---	---	---	---	---	16.98	---	---	---
16	---	---	---	---	---	17.20	---	---	---	---	---	---
17	---	23.70	---	---	17.10	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	16.98	---	---	23.95	---
19	---	---	---	24.00	---	---	---	---	---	---	---	---
20	23.97	---	---	---	---	---	16.92	---	---	18.80	---	---
21	---	---	---	---	---	---	---	---	---	---	---	23.96
22	---	---	23.60	---	---	---	---	---	15.94	---	---	---
23	---	---	---	---	---	18.10	---	---	---	---	---	---
24	---	21.94	---	---	4.96	---	---	---	---	---	23.97	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	23.91	---	---	---	17.98	---	---	---	---
27	20.98	---	---	---	---	---	17.30	---	---	19.60	---	---
28	---	---	---	---	---	---	---	---	---	---	---	23.97
29	---	---	23.80	---	---	---	---	---	16.96	---	---	---
30	---	---	---	---	---	18.50	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	23.97	---
MEAN	23.23	22.63	23.11	23.87	9.34	17.14	17.32	17.62	16.99	18.33	23.56	22.83
MAX	23.98	23.93	23.80	24.00	17.10	18.50	17.97	17.98	17.96	19.60	23.97	23.97
MIN	20.98	20.95	21.96	23.60	4.96	14.94	16.92	16.98	15.94	16.95	21.98	20.80

WTR YR 1981 MEAN 19.91 HIGH 4.96 LOW 24.00

402339077074502. Local number, PE 518.

LOCATION.--Lat 40°23'39", long 77°07'45", Hydrologic Unit 02050305, at State Game Land Number 256.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Mahantango Formation of Middle Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 138 ft (42.1 m), cased 17 ft (5.2 m), open hole.
DATUM.--Altitude of land-surface datum is 590 ft (180 m). Measuring point: Top of plywood cover, 3.05 ft (93 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.48 ft (2.89 m) below land-surface datum, May 17, 1978; lowest, 19.51 ft (5.947 m) below land-surface datum, August 19, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.51	12.63	11.95	12.47	12.48	10.20	11.12	10.48	11.00	10.87	11.54	11.95
2	12.50	12.71	11.91	12.41	12.20	10.28	10.91	10.67	10.93	10.84	11.45	11.81
3	12.51	12.77	12.14	12.60	11.87	10.60	11.02	10.78	10.71	10.76	11.26	11.54
4	12.75	12.87	12.12	12.61	11.78	10.66	11.08	10.75	10.53	10.57	11.21	11.37
5	12.85	12.69	12.07	12.61	11.64	10.54	10.98	10.83	10.77	10.16	11.30	11.57
6	12.76	12.70	12.01	12.48	11.65	10.66	10.71	10.75	10.73	10.11	11.30	11.58
7	12.76	12.59	12.02	12.40	11.58	10.86	10.83	10.66	10.91	10.29	11.08	11.51
8	12.71	12.96	12.08	12.65	11.74	10.87	10.64	10.85	10.92	10.58	11.26	11.44
9	12.63	12.96	12.08	12.66	11.99	10.78	10.44	11.34	10.90	10.61	11.45	11.37
10	12.63	12.79	12.07	12.58	12.05	10.75	10.77	11.34	10.83	10.65	11.53	11.52
11	12.78	12.92	12.08	12.54	11.81	10.65	10.73	10.90	10.90	10.85	11.51	11.52
12	12.78	12.92	12.25	12.55	11.39	10.58	10.66	10.27	11.02	10.92	11.31	11.79
13	12.75	12.73	12.44	12.50	11.33	10.38	10.62	10.02	11.14	11.04	11.54	11.73
14	12.75	12.72	12.39	12.44	11.22	10.87	10.25	9.93	11.18	11.01	11.54	11.57
15	12.67	12.74	12.34	12.53	11.18	10.87	10.17	9.72	11.80	11.18	11.49	11.56
16	12.78	12.81	12.08	12.63	11.13	10.66	9.91	10.03	11.70	10.91	11.47	11.47
17	12.75	12.81	12.42	12.69	11.17	10.65	9.74	10.34	11.87	11.17	11.49	11.57
18	12.60	12.55	12.35	12.65	11.18	10.93	10.38	10.38	12.08	11.36	11.63	11.51
19	12.65	12.55	12.51	12.52	11.12	10.95	10.72	10.18	12.07	11.31	11.66	11.35
20	12.72	12.51	13.08	12.61	10.82	10.73	10.25	10.32	11.80	11.16	11.71	11.55
21	12.81	12.50	12.79	12.62	10.78	11.21	10.58	10.60	11.33	10.88	11.69	11.60
22	12.92	12.96	12.43	12.55	10.63	11.37	10.56	10.60	10.97	11.04	11.81	11.53
23	13.01	12.80	12.26	12.40	10.20	11.12	10.28	10.80	10.97	11.30	11.84	11.39
24	12.83	12.25	12.28	12.68	9.57	11.08	10.05	10.85	10.95	11.31	11.73	11.63
25	12.68	11.83	12.37	12.76	9.59	11.11	10.44	10.66	10.80	11.22	11.77	11.60
26	12.66	11.75	12.44	12.48	9.54	11.16	10.53	10.73	10.88	11.22	11.77	11.78
27	12.66	11.76	12.65	12.39	9.97	11.15	10.57	10.69	10.93	11.13	11.66	11.81
28	12.57	11.56	12.60	12.50	9.98	11.54	10.52	10.64	10.91	11.17	11.76	11.98
29	12.52	11.94	12.31	12.57	---	11.32	10.19	10.65	10.76	11.26	12.02	11.78
30	12.55	11.97	12.33	12.58	---	10.98	10.37	10.92	10.85	11.41	12.08	11.86
31	12.50	---	12.48	12.49	---	11.12	---	10.98	---	11.41	12.19	---
MEAN	12.70	12.54	12.30	12.55	11.13	10.86	10.53	10.60	11.10	10.96	11.58	11.61
MAX	13.01	12.96	13.08	12.76	12.48	11.54	11.12	11.34	12.08	11.41	12.19	11.98
MIN	12.50	11.56	11.91	12.39	9.54	10.20	9.74	9.72	10.53	10.11	11.08	11.35

WTR YR 1981 MEAN 11.54 HIGH 9.54 LOW 13.08

414640077493801. Local number, PO 72.

LOCATION.--lat 41°46'40", long 77°49'38", Hydrologic Unit 02050205, at Denton Hill State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 110 ft (33.5 m), cased to 21 ft (6.4 m), open hole.
DATUM.--Altitude of land-surface datum is 1,810 ft (552 m). Measuring point: Top of plywood cover, 1.10 ft (34 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.20 ft (1.585 m) below land-surface datum, March 23, 1968; lowest, 32.00 ft (9.754 m) below land-surface datum, Oct. 10, 11, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.16	28.40	26.82	25.03	28.35	17.48	17.18	13.32	---	22.30	27.68	27.52
2	31.23	28.73	25.42	25.37	28.31	18.02	16.51	14.54	---	22.42	27.87	27.56
3	31.30	28.94	17.53	25.85	25.69	18.76	16.50	15.59	---	21.76	27.98	25.10
4	31.35	29.05	18.34	26.20	25.86	19.26	17.04	16.47	---	22.11	27.69	25.23
5	31.49	29.16	19.78	26.29	26.23	19.65	17.47	17.38	---	22.26	27.90	23.65
6	31.60	29.31	20.43	26.27	26.27	20.19	18.02	18.14	---	22.52	28.14	22.20
7	31.85	29.40	20.65	26.50	26.38	20.62	18.52	18.85	---	22.80	28.28	21.77
8	31.75	29.42	20.57	26.73	26.37	20.97	18.94	19.48	---	23.13	28.29	21.63
9	31.90	29.31	19.36	26.90	26.61	21.17	19.43	19.99	---	23.44	23.22	19.40
10	32.00	28.57	18.90	27.03	26.82	21.35	19.98	20.42	16.89	23.68	24.09	18.59
11	32.00	28.44	19.29	---	26.73	21.53	20.05	20.43	17.68	23.89	24.70	19.97
12	31.64	28.68	19.70	---	16.05	21.63	20.19	18.89	18.56	24.15	24.29	20.72
13	31.19	28.88	20.20	---	16.14	21.71	20.05	14.36	19.50	24.39	23.55	21.28
14	31.19	29.05	20.68	---	17.40	21.99	17.92	14.56	19.64	24.67	24.02	21.41
15	31.13	29.14	20.95	---	18.35	22.07	16.39	14.03	19.70	25.06	23.64	21.81
16	30.95	29.31	21.30	---	18.90	22.16	15.59	12.84	15.73	25.45	22.05	22.22
17	31.12	29.46	21.55	---	18.90	22.28	16.28	14.01	15.95	25.88	21.53	22.57
18	31.14	29.50	21.86	---	15.82	22.47	17.14	15.75	17.10	26.28	22.28	22.93
19	29.69	29.68	22.54	---	12.89	22.56	17.74	17.09	18.15	26.62	23.02	23.16
20	29.82	29.81	22.90	---	11.90	22.71	18.39	18.08	18.43	26.65	23.56	23.43
21	29.60	29.83	23.11	---	10.85	23.06	18.84	19.02	15.43	25.51	24.07	23.77
22	29.55	29.91	23.17	---	12.03	23.32	19.29	19.87	14.83	25.06	24.56	24.00
23	29.93	29.95	23.18	27.93	12.45	23.50	19.32	20.56	15.87	26.18	25.11	24.50
24	30.14	29.95	23.33	27.88	12.15	23.52	18.99	21.06	17.10	26.85	25.64	24.90
25	30.25	26.06	23.73	28.00	12.62	23.68	17.81	21.51	18.14	27.05	26.16	25.30
26	22.98	25.13	24.01	28.01	14.13	23.80	17.33	---	19.33	27.15	26.58	25.55
27	25.00	25.79	24.28	27.72	15.69	23.79	17.75	---	20.33	27.38	26.86	25.86
28	26.51	26.04	24.47	27.77	16.65	22.94	17.94	---	21.00	27.53	27.10	26.15
29	27.22	26.20	24.47	27.98	---	22.68	17.29	---	21.53	26.99	27.27	26.54
30	27.70	26.70	24.54	28.20	---	22.15	12.94	---	21.90	26.91	27.40	26.79
31	28.10	---	24.86	28.35	---	20.02	---	---	---	27.40	27.33	---
MEAN	30.08	28.59	22.00	27.05	19.52	21.65	17.89	17.45	18.23	24.95	25.54	23.52
MAX	32.00	29.95	26.82	28.35	28.35	23.80	20.19	21.51	21.90	27.53	28.29	27.56
MIN	22.98	25.13	17.53	25.03	10.85	17.48	12.94	12.84	14.83	21.76	21.53	18.59

WTR YR 1981 MEAN 23.17 HIGH 10.85 LOW 32.00

403939076591001. Local number, SN 130.

LOCATION.--Lat 40°39'39", long 76°59'10", Hydrologic Unit 02050301, at State Game Land Number 194. Owner: U.S. Geological Survey.
AQUIFER.--Shale of Marine Beds of Chemung Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 40 ft (12.2 m), open hole.
DATUM.--Altitude of land-surface datum is 740 ft (226 m). Measuring point: Top of plywood cover, 3.55 ft (1.08 m) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.45 ft (3.795 m) below land-surface datum, Sept. 26, 1975; lowest, 19.57 ft (5.965 m) below land-surface datum, Nov. 23, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.44	19.44	18.92	19.29	19.43	---	19.15	19.17	19.27	18.81	19.25	19.32
2	19.44	19.46	18.94	19.32	19.38	---	19.17	19.19	19.26	18.84	19.23	19.34
3	19.45	19.46	18.94	19.32	18.58	---	19.18	19.21	19.25	18.71	19.23	19.33
4	19.45	19.45	18.88	19.34	18.74	---	19.19	19.21	19.25	18.73	19.22	19.33
5	19.47	19.46	18.90	19.35	18.87	---	19.17	19.21	19.27	18.69	19.23	19.33
6	19.47	19.47	18.96	19.32	18.97	---	19.22	19.21	19.25	18.63	19.24	19.34
7	19.45	19.47	19.00	19.34	19.01	---	19.23	19.23	19.27	18.70	19.23	19.35
8	19.45	19.50	19.03	19.37	19.07	---	19.21	19.24	19.27	18.77	19.23	19.34
9	19.47	19.50	19.06	19.35	19.13	---	19.21	19.24	19.27	18.82	19.26	19.35
10	19.47	19.50	19.10	19.36	19.15	---	19.22	19.23	19.27	18.88	19.29	19.37
11	19.46	19.51	19.13	19.36	18.99	---	19.21	19.17	19.31	18.94	19.29	19.38
12	19.48	19.51	19.14	19.36	18.15	---	19.21	18.96	19.31	18.99	19.29	19.38
13	10.49	19.52	19.14	19.37	18.44	---	19.24	18.80	19.33	19.01	19.31	19.38
14	19.48	19.51	19.16	19.37	18.59	---	19.21	18.80	19.30	19.03	19.31	19.39
15	19.49	19.52	19.17	19.40	18.72	---	18.96	18.85	19.28	19.07	19.31	19.38
16	19.48	19.53	19.17	19.39	18.81	---	18.92	18.93	19.28	19.09	19.30	19.38
17	19.49	19.54	19.19	19.40	18.86	---	18.90	19.00	19.32	19.12	19.33	19.39
18	19.46	19.52	19.21	19.41	18.86	---	18.94	19.03	19.32	19.13	19.33	19.39
19	19.50	19.55	19.26	19.42	18.84	---	18.95	19.06	19.32	19.15	19.33	19.40
20	19.49	19.53	19.29	19.43	18.73	---	19.00	19.09	19.30	19.12	19.33	19.39
21	19.51	19.55	19.29	19.42	16.18	---	19.04	19.12	18.45	19.12	19.34	19.42
22	19.53	19.56	19.27	19.42	17.38	---	19.06	19.13	18.51	19.15	19.34	19.41
23	19.53	19.57	19.26	19.41	17.43	---	19.06	19.15	18.62	19.18	19.34	19.44
24	19.53	19.53	19.26	19.41	15.95	---	19.04	19.16	18.72	19.20	19.34	19.40
25	19.50	18.63	19.30	19.43	17.25	---	19.08	19.17	18.76	19.21	19.31	19.41
26	19.39	18.73	19.31	19.41	17.17	19.13	19.14	19.18	17.93	19.21	19.35	19.42
27	19.40	18.78	19.29	19.41	---	19.15	19.13	19.19	18.28	19.21	19.34	19.40
28	19.40	18.79	19.29	19.42	---	19.17	19.13	19.20	18.47	19.21	19.36	19.41
29	19.42	18.80	19.29	19.43	---	19.14	19.15	19.21	18.61	19.21	19.35	19.42
30	19.43	18.85	19.28	19.44	---	19.13	19.16	19.21	18.73	19.22	19.34	19.41
31	19.42	---	19.29	19.45	---	19.16	---	19.23	---	19.25	19.34	---
MEAN	19.47	19.36	19.15	19.38	18.41	19.15	19.12	19.12	19.03	19.01	19.30	19.38
MAX	19.53	19.57	19.31	19.45	19.43	19.17	19.24	19.24	19.33	19.25	19.36	19.44
MIN	19.39	18.63	18.88	19.29	15.95	19.13	18.90	18.80	17.93	18.63	19.22	19.32

WTR YR 1981 MEAN 19.17 HIGH 15.95 LOW 19.57

413026076352901. Local number, SU 34.

LOCATION.--Lat 41°30'26", long 76°35'29", Hydrologic Unit 02050206, near Forksville.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (15 cm), depth 50 ft (15.2 m), cased to 34 ft (10.4 m), open hole.
DATUM.--Altitude of land-surface datum is 1,060 ft (323 m). Measuring point: Top of casing, 2.00 ft (61 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--April 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.42 ft (2.262 m) below land-surface datum, June 23, 1972; lowest, 31.12 ft (9.485 m) below land-surface datum, Sept. 4, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.08	29.70	---	28.63	29.38	23.66	27.40	24.82	27.73	---	28.65	29.83
2	30.16	29.72	---	28.74	29.33	24.18	27.23	24.04	27.74	---	28.77	29.78
3	30.15	29.74	---	28.79	25.12	24.75	26.89	24.30	27.30	27.45	28.94	29.72
4	30.03	29.76	25.67	28.89	25.47	25.11	26.60	24.56	27.00	27.49	28.96	29.63
5	29.90	29.77	25.75	28.94	25.57	25.35	26.48	24.81	26.62	27.49	29.00	29.43
6	29.85	29.79	26.08	28.94	25.65	25.60	26.36	25.05	26.48	27.35	28.97	29.37
7	29.90	29.80	26.30	28.94	25.68	25.86	26.27	25.30	26.62	27.47	---	29.34
8	29.92	29.59	26.48	28.94	---	26.04	26.36	25.59	26.83	27.64	---	29.18
9	29.96	29.34	26.55	29.01	---	26.10	26.48	25.83	26.87	27.84	---	29.05
10	29.96	29.21	26.55	29.07	---	26.16	26.53	26.02	26.97	28.03	---	29.02
11	30.04	29.30	26.29	29.14	---	26.29	26.58	26.09	27.18	28.25	---	29.20
12	29.99	29.40	26.16	---	---	26.37	26.61	26.10	27.51	28.38	---	29.33
13	29.82	29.49	26.31	---	19.93	26.49	26.57	25.61	27.63	28.48	---	29.44
14	29.81	29.56	26.51	---	21.52	26.65	26.29	25.19	27.67	28.52	---	29.52
15	29.85	29.61	26.78	---	22.38	26.74	---	25.15	27.57	28.66	---	29.57
16	29.89	29.65	26.94	---	22.91	26.83	---	25.31	22.70	28.77	---	29.60
17	29.90	29.67	27.07	---	22.90	26.92	---	---	23.43	28.87	---	29.62
18	29.92	29.67	27.20	---	23.06	27.04	---	---	24.00	28.96	---	29.62
19	29.93	29.65	27.41	---	22.78	27.09	---	---	24.53	29.02	---	29.56
20	29.95	29.62	27.71	---	22.50	27.14	---	---	25.04	29.01	---	29.56
21	29.96	29.59	27.95	29.32	19.42	27.39	25.60	26.43	25.35	28.99	---	29.62
22	29.95	29.54	28.12	29.38	20.34	27.46	---	26.69	25.49	28.33	---	29.62
23	29.97	29.50	28.21	29.40	20.38	27.47	---	26.90	25.52	28.44	---	29.64
24	29.96	29.41	28.24	29.41	15.43	27.52	---	27.06	25.78	28.62	---	29.58
25	29.96	28.94	28.32	29.41	18.91	27.64	---	27.21	25.99	28.70	29.72	29.57
26	29.25	26.93	28.40	29.40	20.98	27.61	---	27.51	26.10	28.75	29.72	29.63
27	---	26.07	28.51	29.38	22.03	27.76	---	27.45	26.26	28.75	29.77	29.67
28	29.35	26.06	28.53	29.37	22.94	27.69	---	27.55	26.58	28.75	29.80	29.69
29	29.47	25.94	28.53	29.32	---	27.69	---	27.59	26.86	28.56	29.83	29.75
30	29.57	25.91	28.55	29.32	---	27.69	25.15	27.59	---	28.04	29.83	29.79
31	29.63	---	28.56	29.36	---	27.59	---	27.59	---	28.18	29.85	---
MEAN	29.87	29.00	27.27	29.14	22.81	26.58	26.46	26.05	26.25	28.34	29.37	29.53
MAX	30.16	29.80	28.56	29.41	29.38	27.76	27.40	27.59	27.74	29.02	29.85	29.83
MIN	29.25	25.91	25.67	28.63	15.43	23.66	25.15	24.04	22.70	27.35	28.65	29.02

WTR YR 1981 MEAN 27.59 HIGH 15.43 LOW 30.16

415323077451301. Local number, SQ 61

LOCATION.--Lat 41°53'23", long 77°45'13", Hydrologic Unit 02050101, at State Game Land Number 175.
Owner: U.S. Geological Survey.
AQUIFER.--Sandstone and shale of Susquehanna Group of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 175 ft (53.3 m), cased to 80 ft (24.4 m), open hole.
DATUM.--Altitude of land-surface datum is 1,270 ft (387 m). Measuring point: Top of casing, 3.0 ft (91 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.49 ft (6.55 m) below land-surface datum, Apr. 3, 1978; lowest, 37.11 ft (11.311 m) below land-surface datum, Oct. 22, 1973.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.08	36.22	35.01	35.93	36.79	26.56	33.64	28.05	30.26		---	36.11
2	36.04	36.34	35.01	36.03	36.73	27.11	33.58	27.21	30.43		---	36.13
3	36.01	36.35	34.92	36.07	36.30	27.73	33.55	26.81	30.53		---	36.16
4	36.02	36.32	34.80	36.23	35.52	28.22	33.49	26.83	30.60		---	36.12
5	36.17	36.31	34.66	36.26	35.06	28.65	33.39	26.99	30.75		---	36.12
6	36.26	36.31	34.69	36.23	34.73	29.11	33.37	27.29	30.94		---	36.19
7	36.20	36.30	34.77	36.19	34.35	29.51	33.27	27.60	31.18		35.23	36.26
8	36.17	36.48	34.77	36.27	34.08	30.08	33.11	27.93	31.25		35.24	36.26
9	36.17	36.50	34.76	36.27	33.90	30.37	32.96	28.30	31.27		35.35	36.11
10	36.24	36.52	34.74	36.31	33.86	30.63	32.80	28.68	31.39		35.53	36.04
11	36.18	36.55	34.74	36.43	33.73	30.90	32.67	28.87	31.66		35.53	35.91
12	36.19	36.57	34.71	36.44	32.00	31.11	32.55	28.89	31.90		35.53	35.87
13	36.32	36.59	34.62	36.40	29.63	31.35	32.54	28.88	32.10		---	35.92
14	36.41	36.51	34.76	36.40	28.25	31.62	32.40	28.67	32.23		---	35.94
15	36.42	36.52	34.81	36.43	27.72	31.93	32.09	28.27	32.34		---	35.91
16	36.38	36.69	34.81	36.43	27.83	32.03	31.56	27.95	32.34		---	35.89
17	36.34	36.75	34.91	36.49	27.94	32.14	30.84	27.19	32.44		---	35.90
18	36.31	36.61	34.93	36.58	27.94	32.25	30.23	26.46	32.54		---	35.99
19	36.32	36.64	35.02	36.63	27.92	32.43	30.00	26.04	32.60		---	35.87
20	36.40	36.65	35.11	36.68	27.63	32.54	29.91	26.03	32.62		35.74	35.69
21	36.49	36.66	35.23	36.63	27.21	32.81	30.08	26.27	32.66		35.94	35.84
22	36.44	36.66	35.28	36.61	26.63	32.93	30.18	26.65	32.73		35.99	35.87
23	36.50	36.90	35.29	36.61	26.07	33.04	30.17	27.17	32.79		---	35.85
24	36.51	36.90	35.43	36.65	25.79	33.07	30.13	27.55	32.81		---	35.77
25	36.46	36.50	35.56	36.72	25.51	33.17	30.13	28.05	---		35.99	35.30
26	36.27	35.42	35.64	36.72	25.38	33.27	30.07	28.41	---		35.96	35.15
27	36.34	35.03	35.73	36.70	25.55	33.35	30.01	28.73	---		35.96	35.12
28	36.31	34.94	35.73	36.70	25.87	33.52	29.85	29.04	---		35.96	35.20
29	36.33	34.31	35.72	36.76	---	33.65	29.62	29.33	---		36.06	35.20
30	36.32	34.98	35.83	36.78	---	33.65	29.06	29.64	---		36.13	35.19
31	36.27	---	35.90	36.79	---	33.63	---	30.02	---		36.13	---
MEAN	36.29	36.29	35.09	36.46	30.35	31.37	31.58	27.86	31.77		35.77	35.83
MAX	36.51	36.90	35.90	36.79	36.79	33.65	33.64	30.02	32.81		36.13	36.26
MIN	36.01	34.91	34.62	35.93	25.38	26.56	29.06	26.03	30.26		35.23	35.12

WTR YR 1981 MEAN 33.47 HIGH 25.38 LOW 36.90

414510077333301. Local number, TI 1.

LOCATION.--Lat 41°45'10", long 77°33'33", Hydrologic Unit 02050205, at Gaines.
Owner: Mrs. Ruth K. Wilson.
AQUIFER.--Alluvium of Holocene age.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 30 in (76 cm), depth 23 ft (7.0 m), cased with stone.
DATUM.--Altitude of land-surface datum is 1,290 ft (393 m). Measuring point: Top of wooden cover, 3.80 ft (1.2 m) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--August 1935 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.17 ft (1.271 m) below land-surface datum, April 22, 1961; lowest measured, 22.04 ft (6.718 m) below land-surface datum, Nov. 6, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		19.55	---	---	---	---	---	---	---	---	16.60	---
2		---	---	---	---	---	---	7.55	---	---	---	---
3		---	---	---	---	---	---	---	---	---	---	---
4		---	---	---	---	---	11.80	---	---	11.80	---	---
5		---	---	---	---	---	---	---	---	---	---	18.70
6		---	19.44	---	---	---	---	---	12.00	---	---	---
7		---	---	---	20.40	10.40	---	---	---	---	---	---
8		19.52	---	---	---	---	---	---	---	---	17.00	---
9		---	---	---	---	---	---	7.70	---	---	---	---
10		---	---	19.90	---	---	---	---	---	---	---	---
11		---	---	---	---	---	12.60	---	---	13.75	---	---
12		---	---	---	---	---	---	---	---	---	---	18.60
13		---	19.50	---	---	---	---	---	11.80	---	---	---
14		---	---	---	---	10.45	---	---	---	---	---	---
15		19.47	---	---	---	---	---	---	---	---	18.00	---
16		---	---	---	---	---	---	8.30	---	---	---	---
17		---	---	20.00	---	---	---	---	---	---	---	---
18		---	---	---	---	---	12.51	---	---	17.10	---	---
19		---	---	---	---	---	---	---	---	---	---	18.70
20		---	19.52	---	---	---	---	---	11.72	---	---	---
21		---	---	---	---	10.40	---	---	---	---	---	---
22		---	---	---	---	---	---	---	---	---	18.90	---
23		---	---	---	---	---	---	8.25	---	---	---	---
24		19.50	---	20.00	---	---	---	---	---	---	---	---
25		---	---	---	---	---	12.55	---	---	---	---	---
26		---	---	---	---	---	---	---	---	---	---	18.60
27		---	19.55	---	---	---	---	---	11.75	---	---	---
28		---	---	---	15.40	10.40	---	---	---	---	---	---
29		19.45	---	---	---	---	---	---	---	---	18.80	---
30		---	---	---	---	---	---	11.85	---	---	---	---
31		---	---	20.40	---	---	---	---	---	---	---	---
MEAN		19.50	19.50	20.08	17.90	10.41	12.37	8.73	11.82	14.22	17.86	18.65
MAX		19.55	19.55	20.40	20.40	10.45	12.60	11.85	12.00	17.10	18.90	18.70
MIN		19.45	19.44	19.90	15.40	10.40	11.80	7.55	11.72	11.80	16.60	18.60

WTR YR 1981 MEAN 15.46 HIGH 7.55 LOW 20.40

414513077333701. Local number, TI 100.

LOCATION.--Lat 41°45'13", long 77°33'37", Hydrologic Unit 02050205, at State Game Land Number 208.
Owner: U.S. Geological Survey.
AQUIFER.--Sandstone of Oswayo Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 77 ft (23.5 m), cased to 67 ft (20.4 m), open hole.
DATUM.--Altitude of land-surface datum is 1,130 ft (399 m). Measuring point: Top of casing, 4.0 ft (1.2 m) above land-surface datum.
REMARKS.--Water-quality records for 1973-75 are available in files of district office.
PERIOD OF RECORD.--July 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.02 ft (9.45 m) below land-surface datum, Mar. 27, 1978; lowest, 34.56 ft (10.564 m) below land-surface datum, Oct. 18, 1972.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	33.56	33.42	33.56	33.94	32.54	33.16	32.27	32.63	32.44	33.04	33.22
2	---	33.66	33.57	33.68	33.82	32.63	33.20	32.33	32.60	32.50	32.94	33.28
3	---	33.64	33.51	33.68	33.94	32.78	33.11	32.38	32.55	32.43	32.88	33.24
4	---	33.50	33.41	33.73	33.94	32.73	32.96	32.33	32.33	32.36	32.91	33.14
5	---	33.55	33.27	33.81	34.00	32.60	32.92	32.25	32.20	32.33	33.00	33.14
6	---	33.61	33.25	33.74	33.92	32.74	33.13	32.22	32.04	32.49	33.00	33.13
7	---	33.50	33.19	33.70	33.80	32.84	33.20	32.35	32.15	32.54	32.91	33.05
8	---	33.66	33.28	33.85	33.73	32.87	33.12	32.37	32.10	32.62	32.89	33.04
9	---	33.65	33.33	33.86	33.95	32.94	33.08	32.33	31.97	32.57	33.01	33.19
10	---	33.70	33.41	33.80	33.97	32.85	33.19	32.31	32.00	32.63	33.05	33.11
11	---	33.68	33.29	33.79	33.78	33.16	33.06	32.23	32.19	32.67	33.02	33.09
12	---	33.69	33.30	33.84	33.87	32.90	33.04	32.32	32.21	32.68	33.04	33.14
13	---	33.65	33.35	33.76	33.73	32.70	33.16	32.33	32.28	32.66	33.06	33.08
14	---	33.61	33.35	33.81	33.47	32.82	33.07	32.27	32.13	32.75	33.01	33.10
15	---	33.72	33.30	33.85	33.26	32.80	33.05	32.07	32.17	32.85	32.97	33.16
16	---	33.69	33.40	33.83	33.17	32.79	32.97	32.13	32.10	32.99	33.00	33.21
17	---	33.69	33.36	33.87	33.12	32.82	32.71	32.18	32.19	32.93	33.08	33.28
18	---	33.63	33.61	33.81	33.10	32.92	32.69	32.15	32.09	32.88	33.10	33.17
19	---	33.70	33.60	33.83	33.07	32.91	32.71	32.08	32.13	32.91	33.24	33.16
20	---	33.75	33.58	33.93	32.87	32.92	32.71	32.12	32.14	32.93	33.17	33.37
21	---	33.63	33.54	33.91	32.87	33.26	32.88	32.20	32.08	32.76	33.17	33.24
22	---	33.68	33.35	33.81	32.88	33.35	32.77	32.13	31.99	32.97	33.25	32.20
23	---	33.65	33.33	33.82	32.75	33.23	32.53	32.18	32.26	33.03	33.15	32.31
24	---	33.64	33.45	33.89	32.64	33.42	32.53	32.22	32.25	32.98	33.53	32.34
25	33.70	33.65	33.60	33.91	32.69	33.50	32.68	32.18	32.13	32.91	33.26	32.36
26	33.58	33.53	33.60	33.83	32.77	33.29	32.72	32.33	32.24	32.89	33.21	32.29
27	33.61	33.29	33.65	33.92	32.77	33.22	32.95	32.27	32.30	32.96	33.28	32.22
28	33.51	33.38	33.65	33.93	32.62	33.27	32.73	32.25	32.35	32.94	33.23	32.52
29	33.62	33.49	33.50	34.08	---	33.13	32.46	32.28	32.40	32.92	33.21	32.45
30	33.61	33.52	33.65	34.07	---	32.99	32.38	32.29	32.31	33.06	33.24	32.49
31	33.50	---	33.66	34.01	---	33.19	---	32.49	---	33.11	33.24	---
MEAN	33.59	33.61	33.44	33.84	33.37	32.97	32.90	32.25	32.22	32.76	33.10	32.92
MAX	33.70	33.75	33.66	34.08	34.00	33.50	33.20	32.49	32.63	33.11	33.53	33.37
MIN	33.50	33.29	33.19	33.56	32.62	32.54	32.38	32.07	31.97	32.33	32.88	32.20

WTR YR 1981 MEAN 33.05 HIGH 31.97 LOW 34.08

405928077115501. Local number UN 51.

LOCATION.--Lat 40°59'28", long 77°11'55", Hydrologic Unit 02050206, at Raymond B. Winter Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Reedsville Formation of Late Ordovician age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 115 ft (35.1 m), cased to 91 ft (27.7 m), open hole.
DATUM.--Altitude of land-surface datum is 1,550 ft (472 m). Measuring point: Top of plywood cover, 3.58 ft (1.09 m) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.26 ft (7.70 m) below land-surface datum, Apr. 10, 1978; lowest, 42.24 ft (12.875 m) below land-surface datum, Jan. 29, 30, 31 to Feb. 1, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.63	41.92	42.05	42.12	42.24	26.83	38.69	37.05	37.15	38.69	38.66	40.20
2	41.62	41.92	42.07	42.14	42.23	27.84	38.77	37.06	37.31	---	38.73	40.24
3	41.65	41.91	42.06	42.14	42.23	28.91	38.82	37.08	37.41	---	38.81	40.26
4	41.65	41.94	42.05	42.15	42.22	29.71	38.89	37.02	37.53	---	38.87	40.28
5	41.67	41.94	42.05	42.16	42.22	30.61	38.96	36.90	37.68	---	38.96	40.31
6	41.68	41.95	42.06	42.14	42.21	31.45	39.05	36.76	37.79	---	39.01	40.34
7	41.68	41.97	42.06	42.16	42.21	32.25	39.06	36.64	37.94	---	39.07	40.35
8	41.69	41.98	42.06	42.16	42.22	32.95	39.08	36.55	38.01	---	39.15	40.38
9	41.71	41.97	42.06	42.16	42.22	33.54	39.15	36.45	38.11	---	39.22	40.42
10	41.70	41.99	42.06	42.17	42.23	34.07	39.16	36.40	38.20	---	39.28	40.43
11	41.73	42.00	42.05	42.17	42.21	34.54	39.15	36.30	38.32	---	39.33	40.46
12	41.74	42.00	42.05	42.17	42.06	34.92	39.17	36.24	38.38	---	39.39	40.49
13	41.76	42.01	42.07	42.18	41.92	35.36	39.17	36.21	38.44	---	39.44	40.51
14	41.76	42.01	42.07	42.19	41.83	35.70	39.11	36.12	38.51	---	39.49	40.54
15	41.78	42.02	42.05	42.20	41.76	35.94	39.06	35.94	38.56	---	39.51	40.58
16	41.79	42.04	42.05	42.19	41.69	36.27	38.99	35.73	38.63	---	39.60	40.59
17	41.78	42.03	42.04	42.19	41.63	36.53	38.86	35.48	38.68	---	39.65	40.62
18	41.80	42.05	42.05	42.20	41.55	36.73	38.72	35.25	38.71	---	39.69	40.63
19	41.82	42.05	42.06	42.20	41.45	36.96	38.64	35.08	38.75	---	39.74	40.66
20	41.82	42.05	42.08	42.20	41.20	37.19	38.40	35.05	38.73	---	39.79	40.69
21	41.83	42.07	42.08	42.20	40.51	37.45	38.23	35.12	38.73	---	39.83	40.72
22	41.85	42.07	42.07	42.20	39.33	37.58	38.00	35.27	38.75	---	39.87	40.75
23	41.85	42.08	42.09	42.20	37.22	37.72	37.71	35.42	38.76	37.93	39.91	40.76
24	41.87	42.07	42.12	42.21	33.58	37.88	37.44	35.62	38.77	38.04	39.97	40.80
25	41.86	42.04	42.12	42.21	27.52	38.04	37.31	35.81	38.74	38.12	39.95	40.82
26	41.86	42.05	42.12	42.21	25.19	38.12	37.25	36.00	38.72	38.17	40.01	40.84
27	41.86	42.04	42.13	42.21	25.15	38.28	37.18	36.19	38.73	38.26	40.05	40.85
28	41.89	42.06	42.12	42.23	25.83	38.34	37.14	36.38	38.73	38.29	40.08	40.89
29	41.89	42.06	42.11	42.24	---	38.42	37.07	36.58	38.72	38.42	40.12	40.90
30	41.89	42.06	42.12	42.24	---	38.53	37.10	36.75	38.69	38.52	40.13	40.91
31	41.91	---	42.12	42.24	---	38.62	---	37.02	---	38.60	40.17	---
MEAN	41.77	42.01	42.08	42.19	39.07	35.07	38.44	36.18	38.34	38.30	39.53	40.57
MAX	41.91	42.08	42.13	42.24	42.24	38.62	39.17	37.08	38.77	38.69	40.17	40.91
MIN	41.62	41.91	42.04	42.12	25.15	26.83	37.07	35.05	37.15	37.93	38.66	40.20

WTR YR 1981 MEAN 39.53 HIGH 25.15 LOW 42.24

400320076451501. Local number, YO 180.

LOCATION.--Lat 40°03'20", long 76°45'15", Hydrologic Unit 02050306, near Zions View.
Owner: New York Wire Cloth Company.
AQUIFER.--Shale of New Oxford Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 490 ft (149 m), casing information not available.
DATUM.--Altitude of land-surface datum is 360 ft (110 m). Measuring point: Top of casing at land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--March 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.02 ft (5.492 m) below land-surface datum, May 30, 1980; lowest, 37.55 ft (11.445 m) below land-surface datum, Nov. 3, 4, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.75	27.58	26.59	27.28	28.43	24.58	24.08	23.12	25.61	25.34	26.32	27.60
2	26.79	27.70	26.49	27.46	28.44	24.51	24.17	23.29	25.60	25.40	26.29	27.62
3	26.90	27.72	26.66	27.49	28.49	24.60	24.16	23.44	25.58	25.42	26.29	27.62
4	27.03	27.56	26.60	27.63	28.39	24.49	24.14	23.48	25.51	25.25	26.28	27.63
5	27.14	27.66	26.49	27.67	28.34	24.25	24.09	23.52	25.54	25.05	26.25	27.62
6	27.18	27.67	26.47	27.49	28.24	24.36	24.25	23.50	25.42	24.92	26.26	27.59
7	27.15	27.59	26.42	27.69	28.16	24.42	24.35	23.69	25.53	24.86	26.22	27.59
8	27.16	27.85	26.33	27.78	28.09	24.43	24.21	23.85	25.54	24.82	26.25	27.51
9	27.33	27.75	26.41	27.76	28.20	24.33	24.18	23.87	25.54	24.74	26.38	27.51
10	27.31	27.89	26.52	27.81	28.20	24.15	24.31	23.87	25.58	24.76	26.52	27.56
11	27.36	27.89	26.54	27.85	27.88	23.95	24.16	23.82	25.74	24.86	26.51	27.54
12	27.51	27.93	26.44	27.82	28.01	23.81	24.28	24.01	25.79	24.96	26.52	27.53
13	27.61	27.86	26.52	27.82	27.85	23.61	24.31	24.07	25.78	24.97	26.64	27.55
14	27.66	27.88	26.60	27.91	27.55	23.74	24.12	24.08	25.69	24.95	26.69	27.54
15	27.71	27.93	26.60	28.02	27.41	23.60	23.91	24.09	25.61	25.13	26.67	27.52
16	27.76	28.00	26.59	28.05	27.31	23.52	23.65	24.23	25.48	25.21	26.74	27.49
17	27.77	28.02	26.70	28.12	27.15	23.51	23.26	24.37	25.45	25.29	26.86	27.46
18	27.72	27.89	26.73	28.11	27.09	23.51	22.95	24.43	25.46	25.39	26.92	27.40
19	27.74	27.96	27.00	28.14	27.01	23.47	23.01	24.42	25.36	25.45	26.95	27.19
20	27.80	27.85	27.05	28.28	26.75	23.52	22.83	24.50	25.22	25.42	27.00	27.07
21	27.88	27.73	27.10	28.19	26.47	23.80	22.95	24.55	25.17	25.39	27.07	27.18
22	28.03	27.76	27.00	28.15	26.37	23.84	22.82	24.59	25.04	25.54	27.15	27.10
23	28.07	27.63	26.90	28.21	26.03	23.72	22.64	24.72	25.12	25.64	27.14	27.21
24	27.96	27.38	26.98	28.28	25.47	23.74	22.47	24.83	25.08	25.76	27.20	27.23
25	27.86	27.29	27.12	28.28	25.24	23.83	22.73	24.91	25.00	25.85	27.36	27.28
26	27.91	27.09	27.13	28.24	25.00	23.89	22.88	25.03	25.02	25.88	27.41	27.30
27	27.91	27.04	27.17	28.29	24.93	23.95	22.94	25.11	25.13	25.95	27.48	27.23
28	27.74	26.68	27.17	28.36	24.75	24.02	22.93	25.16	25.20	26.06	27.59	27.41
29	27.75	26.62	27.06	28.50	---	23.92	22.93	25.22	25.23	26.03	27.64	27.47
30	27.71	26.66	27.18	28.55	---	23.93	23.09	25.31	25.25	26.19	27.62	27.47
31	27.56	---	27.25	28.56	---	24.18	---	25.41	---	26.32	27.59	---
MEAN	27.54	27.60	26.77	27.99	27.19	23.97	23.56	24.27	25.41	25.38	26.83	27.43
MAX	28.07	28.02	27.25	28.56	28.49	24.60	24.35	25.41	25.79	26.32	27.64	27.63
MIN	26.75	26.62	26.33	27.28	24.75	23.47	22.47	23.12	25.00	24.74	26.22	27.07

WTR YR 1981 MEAN 26.16 HIGH 22.47 LOW 28.56

BEST DOCUMENT AVAILABLE

INDEX

ACRE-FOOT, DEFINITION OF........ 6
ALDER RUN NEAR KYLERTOWN........ 276
ALGAE, DEFINITION OF........ 6
ALGAL GROWTH POTENTIAL,
  DEFINITION OF........ 6
ALTOONA, GLENWHITE RUN NEAR........ 302
  KITTANING CREEK NEAR........ 302
  SUGAR RUN NEAR........ 302
ANALYSES OF SAMPLES COLLECTED AT WATER-
  QUALITY PARTIAL-RECORD STATIONS........ 278
ANDERSON CREEK, AT CURWENSVILLE........276,282
  NEAR PENFIELD........ 282
ANNA S MINE DISCHARGE, NO.1 NEAR ANTRIM........ 116
  NO.2 NEAR ANTRIM........ 120
ANTRIM, ANNA S MINE DISCHARGE NO.1 NEAR........ 116
  ANNA S MINE DISCHARGE NO.2 NEAR........ 120
  BACKSWITCH MINE DISCHARGE AT........ 111
  BASSWOOD RUN AT MOUTH NEAR 121
  BRIDGE RUN AT MOUTH AT........ 115
  HUNTER DRIFT DISCHARGE NEAR........ 118
  MITCHELL MINE DISCHARGE NO.1 AT........ 112
  MITCHELL MINE DISCHARGE NO.2 AT........ 113
  WILSON CREEK ABOVE SAND RUN NEAR........ 107
APPLEMANS RUN BELOW LIGHT STREET........ 276
AQUIFER, DEFINITION OF........ 6
ARCHBALD, LACKAWANNA RIVER AT........ 47
ARTESIAN, DEFINITION OF........ 6
ARTIFICIAL SUBSTRATE, DEFINITION OF........ 10
ASH MASS, DEFINITION OF........ 6
ASHVILLE, CLEARFIELD CREEK AT........ 282
AUGHWICK CREEK NEAR THREE SPRINGS........ 171
AXEMANN, SPRING CREEK NEAR........ 92

BABB CREEK, AT BLACKWELL........ 125
  AT MORRIS........ 106
BACKSWITCH MINE DISCHARGE AT ANTRIM........ 111
BACTERIA, DEFINITION OF........ 6
BAKER RUN NEAR HYNER........ 298
BALD EAGLE CREEK, AT BEECH CREEK STATION........ 105
  AT BLANCHARD........ 97
  AT TYRONE........ 159
  BELOW SPRING CREEK AT MILESBURG........ 94
  NEAR MILESBURG........ 95
BARD, LITTLE WILLS CREEK AT........ 275
BASSWOOD RUN AT MOUTH NEAR ANTRIM........ 121
BECK CREEK NEAR CLEONA........ 223
BED MATERIAL, DEFINITION OF........ 6
BEECH CREEK:
  AT MONUMENT........ 103
  NORTH FORK AT CLARENCE........ 298
  SOUTH FORK NEAR SNOW SHOE........ 101
BEECH CREEK STATION:
  BALD EAGLE CREEK AT........ 105
BELDEN, DUNNING CREEK AT........ 164
BELLEGROVE, QUITTAPAHILLA CREEK NEAR........ 224
BELL RUN AT BELLS LANDING........ 282
BELLS GAP RUN NEAR BLANDBURG........ 302
BELLS LANDING, BELL RUN AT........ 282
BELLWOOD, SANDY RUN NEAR........ 274
BENNETT BRANCH SINNEMAHONING CREEK, AT
  DRIFTWOOD........276,294
  AT MEDIX RUN........ 294
BENZETTE, TROUT RUN AT........ 294
BIG RUN AT TRUMAN........294,296
BIOCHEMICAL OXYGEN DEMAND,
  DEFINITION OF........ 6
BIOMASS, DEFINITION OF........ 6
BIRCH CREEK NEAR RINGDALE........ 300
BIXLER RUN NEAR LOYSVILLE........ 182
BLACK BEAR RUN NEAR WINBURNE........ 290
BLACK MOSHANNON CREEK, AT MOSHANNON........ 292
BLACKWELL, BABB CREEK AT........ 125
  STONY FORK NEAR MOUTH NEAR........ 124
BLAIN RUN AT COALPORT........ 284
BLAIRS GAP RUN NEAR FOOT OF TEN........ 302
BLANCHARD, BALD EAGLE CREEK AT........ 97
  MARSH CREEK AT........ 100
BLANDBURG, BELLS GAP RUN NEAR........ 302
  SHAW RUN NEAR........ 302
BLOCKHOUSE CREEK NEAR ENGLISH CENTER........ 128
BLOOMSBURG, FISHING CREEK ABOVE........ 276
  FISHING CREEK NEAR........ 54
  FISHING CREEK TRIBUTARY NEAR........ 276
  LITTLE FISHING CREEK NEAR........ 276
BLOSSBURG, COAL RUN AT........ 278
  JOHNSON CREEK AT........ 278
BLUE-GREEN ALGAE, DEFINITION OF........ 9
BOTTOM MATERIAL. SEE BED MATERIAL
BOWER, WEST BRANCH SUSQUEHANNA RIVER AT........ 62
BOWERY RUN NEAR QUARRYVILLE........ 269
BRIDGEPORT, KRATZER RUN AT........ 282
BRIDGE RUN AT MOUTH AT ANTRIM........ 115
BRUBAKER RUN NEAR HASTINGS........ 280
BUCK, CONOWINGO CREEK NEAR........ 275
BULL RUN NEAR LOGANTON........ 274

CAMERON, HUNTS RUN AT........ 296
CAMP HILL, YELLOW BREECHES CREEK NEAR........ 221
CARLISLE, LETORT SPRING RUN NEAR........ 186
CARROLLTOWN, LESLE RUN NEAR........ 278
CARSONTOWN, OTTER RUN AT........ 300
CARSONVILLE, CLARK CREEK NEAR........ 185
CASSVILLE, GREAT TROUGH CREEK NEAR........ 304
CEDAR RUN, PINE CREEK AT........ 126
CELLS/VOLUME, DEFINITION OF........ 6
CENTERVILLE, EVITTS CREEK NEAR........ 270
CFS-DAY, DEFINITION OF........ 7
CHEMICAL OXYGEN DEMAND, DEFINITION OF........ 7
CHEMUNG RIVER BASIN, LAKES IN........ 40
CHERRY TREE, WEST BRANCH SUSQUEHANNA RIVER
  AT........ 280
CHEST CREEK, AT MAHAFFEY........ 282
  AT PATTON........ 280
CHILLISQUAQUE CREEK, AT WASHINGTONVILLE........ 151
CHLOROPHYLL, DEFINITION OF........ 7
CLARENCE, NORTH FORK BEECH CREEK AT........ 298
CLARK CREEK NEAR CARSONVILLE........ 185
CLARK CREEK BASIN, RESERVOIR IN........ 184
CLEARFIELD, CLEARFIELD CREEK AT........ 288
  MOOSE CREEK AT........ 282
CLEARFIELD CREEK AT ASHVILLE........ 282
  AT CLEARFIELD........ 288
  AT DIMELING........ 66
  AT FRUGALITY........ 282
  NEAR MADERA........ 284
CLEONA, BECK CREEK NEAR........ 223
COAL RUN AT BLOSSBURG........ 278
COALPORT, BLAIN RUN AT........ 284
CODORUS CREEK, AT SPRING GROVE........ 227
  NEAR YORK........ 229
  SOUTH BRANCH NEAR YORK........ 228
CODORUS CREEK BASIN, LAKE AND RESERVOIR IN........ 230
COLD STREAM ABOVE GLASS CITY........ 290
  AT PHILLIPSBURG........ 290
COLOR UNIT, DEFINITION OF........ 7
COLUMBIA CROSS ROADS, NORTH BRANCH SUGAR
  CREEK TRIBUTARY NEAR........ 273
CONESTOGA RIVER AT LANCASTER........ 232
CONOCOCHEAGUE CREEK NEAR FAYETTEVILLE........ 272
CONODOGUINET CREEK NEAR HOGESTOWN........ 187
CONOWINGO CREEK NEAR BUCK........ 275
CONTENTS, DEFINITION OF........ 7
CONTROL, DEFINITION OF........ 7
CONTROL STRUCTURE, DEFINITION OF........ 7
COOKS RUN NEAR KEATING........ 296
COOPERATION........ 1
COREY CREEK NEAR MAINESBURG........ 29
COUNTY BRIDGE, TIOGA RIVER AT........ 278
COWANESQUE RIVER AT ELKLAND........ 273
  NEAR LAWRENCEVILLE 37
COWANESQUE LAKE........ 40
CROOKED CREEK AT MIDDLEBURY CENTER........ 273
CROSS FORK, CROSS FORK AT........ 276
  KETTLE CREEK AT 77
CROWLEY HOLLOW NEAR KEATING........ 296
CUBIC FOOT PER SECOND, DEFINITION OF 7
CUBIC FEET PER SECOND PER SQUARE MILE,
  DEFINITION OF........ 7
CURWENSVILLE, ANDERSON CREEK AT........ 276,282
  WEST BRANCH SUSQUEHANNA RIVER AT........ 64

CURWENSVILLE LAKE............................ 152
CUSH CREEK NEAR GLEN CAMPBELL................ 280

DALMATIA, EAST MAHANTANGO CREEK NEAR......... 157
DANVILLE, SUSQUEHANNA RIVER AT............... 56
DEER CREEK NEAR FRENCHVILLE.................. 288
DEFINITION OF TERMS.......................... 6
DEHART RESERVOIR............................. 184
DENTS RUN AT DENTS RUN....................... 294
DENTS RUN, DENTS RUN AT...................... 294
DIATOMS, DEFINITION OF....................... 9
DIMELING, CLEARFIELD CREEK AT................ 66
DISCHARGE AT PARTIAL-RECORD STATIONS AND
      MISCELLANEOUS SITES.................... 273
DISCHARGE, DEFINITION OF..................... 7
DISSOLVED, DEFINITION OF..................... 7
DIVERSITY INDEX, DEFINITION OF............... 7
DOTTS HOLLOW NR IRVONA....................... 284
DOWNSTREAM ORDER AND
   STATION NUMBERS........................... 11
DRAINAGE AREA, DEFINITION OF................. 7
DRAINAGE BASIN, DEFINITION OF................ 7
DRIFTWOOD, BENNETT BRANCH SINNEMAHONING
      CREEK AT...........................276,294
   MIX RUN NEAR.............................. 294
DRIFTWOOD BRANCH SINNEMAHONING CREEK, AT
   STERLING RUN.............................. 73
   NEAR LOCKWOOD............................. 296
DRURY RUN AT DRURY RUN....................... 298
DRURY RUN, DRURY RUN AT...................... 298
DRY MASS, DEFINITION OF...................... 6
DUNNING CREEK, AT BELDEN..................... 164

EAST BRANCH HICKS RUN NEAR HUSTON HILL...... 294
EAST MAHANTANGO CREEK NEAR DALMATIA......... 157
EAST WATERFORD, LICK RUN NEAR............... 274
EDENDALE, TROUT RUN AT...................... 290
ELIMSPORT, WHITE DEER HOLE CREEK NEAR....... 274
ELKLAND, COWANESQUE RIVER AT................ 273
EMIGH RUN AT HAWK RUN....................... 290
EMPORIUM, WALDY RUN NEAR.................... 72
ENGLISH CENTER, BLOCKHOUSE CREEK NEAR....... 128
   ENGLISH RUN AT............................ 300
   LITTLE PINE CREEK NEAR.................... 300
ENGLISH RUN AT ENGLISH CENTER............... 300
ENTRIKEN, TATMAN RUN NEAR................... 304
EVITTS CREEK NEAR CENTERVILLE............... 270
EXPLANATION OF:
   GROUND-WATER LEVEL RECORDS................ 16
   STAGE AND WATER-DISCHARGE RECORDS......... 13
   WATER-QUALITY RECORDS..................... 15

FAYETTEVILLE, CONOCOCHEAGUE CREEK NEAR...... 272
FECAL COLIFORM BACTERIA, DEFINITION OF...... 6
FECAL STREPTOCOCCAL BACTERIA,
   DEFINITION OF............................. 6
FIRST FORK SINNEMAHONING CREEK
   NEAR SINNEMAHONING........................ 76
FIRST FORK SINNEMAHONING CREEK RESERVOIR.... 152
FISHING CREEK, ABOVE BLOOMSBURG............. 276
   ABOVE LIGHT STREET........................ 276
   BELOW LIGHT STREET........................ 276
   NEAR BLOOMSBURG........................... 54
FISHING CREEK TRIBUTARY, NEAR BLOOMSBURG.... 276
   NEAR LIGHT STREET 276
FOOT OF TEN, BLAIRS GAP RUN NEAR............ 302
FOREST CITY, LACKAWANNA RIVER NEAR.......... 46
FOSTER JOSEPH SAYERS LAKE................... 152
FOX RUN AT SPANGLER......................... 280
FRANKSTOWN BRANCH JUNIATA RIVER AT
     WILLIAMSBURG............................ 158
FRENCHVILLE, DEER CREEK NEAR................ 288
FROZEN RUN NEAR RALSTON..................... 300
FRUGALITY, CLEARFIELD CREEK AT.............. 282
   SLATE LICK RUN NEAR....................... 284

GAGE HEIGHT, DEFINITION OF.................. 7
GAGING STATION, DEFINITION OF............... 7
GAGING STATION RECORDS...................... 22
GARDEAU, PARKER RUN AT...................... 296
GLADDENS RUN NEAR HYNMAN.................... 304
GLASS CITY, COLD STREAM ABOVE............... 290
GLEN CAMPBELL, CUSH CREEK NEAR.............. 280
GLEN RICHEY, LITTLE CLEARFIELD CREEK NEAR... 286
GLENCOE, WILLS CREEK AT..................... 304
GLENDALE LAKE............................... 152
GLENWHITE RUN NEAR ALTOONA.................. 302
GOODS RUN, TRIBUTARY AT WEST WILLOW......... 254
     TRIBUTARY AT WILLOW STREET.............. 245
GREAT TROUGH CREEK NEAR CASSVILLE........... 304
GREEN ALGAE, DEFINITION OF.................. 9
GROUND-WATER LEVEL DATA..................... 307

HAMMOND LAKE................................ 40
HARDNESS, DEFINITION OF..................... 7
HARPER TAVERN, SWATARA CREEK AT............. 222
HARRISBURG,SUSQUEHANNA RIVER AT............. 188
HASTINGS, BRUBAKER RUN NEAR................. 280
   LITTLE BRUBAKER RUN NEAR.................. 280
HAWK RUN, EMIGH RUN AT...................... 290
   HAWK RUN NEAR............................. 290
HAWK RUN NEAR HAWK RUN...................... 290
HERNDON, MAHANOY CREEK NEAR................. 277
HERSHEY, SWATARA CREEK NEAR................. 225
HOGESTOWN, CONODOGUINET CREEK NEAR.......... 187
HOPEWELL, SANDY RUN AT...................... 302
HOWARD SIDING, WEST CREEK AT................ 296
HUNTER DRIFT DISCHARGE NEAR ANTRIM.......... 118
HUNTINGDON, JUNIATA RIVER AT................ 161
   RAYSTOWN BRANCH JUNIATA RIVER BELOW
      RAYSTOWN DAM NEAR...................... 167
HUNTS RUN AT CAMERON........................ 296
HUSTON HILL, EAST BRANCH HICKS RUN NEAR..... 294
HYDE, WEST BRANCH SUSQUEHANNA RIVER AT...... 65
HYDROLOGIC CONDITIONS, SUMMARY OF........... 2
 HYDROLOGIC UNIT, DEFINITION OF............. 8
HYNER, BAKER RUN NEAR....................... 298
HYNDMAN, GLADDENS RUN NEAR.................. 304
   WILLS CREEK NEAR.......................... 304

INDIAN ROCK RESERVOIR....................... 230
INSTANTANEOUS DISCHARGE, DEFINITION OF...... 7
INTRODUCTION................................ 1
IRVONA, NORTH WITMER RUN AT................. 284
   DOTTS HOLLOW NEAR......................... 284
   PINE RUN NEAR............................. 284

JAPLIN RUN AT MADERA........................ 286
JOHNSON CREEK AT BLOSSBURG.................. 278
JUNIATA RIVER AT HUNTINGDON................. 161
   AT MAPLETON DEPOT......................... 170
   AT NEWPORT................................ 173
   FRANKSTOWN BRANCH, AT WILLIAMSBURG........ 158
   RAYSTOWN BRANCH, AT SAXTON................ 165
     BELOW RAYSTOWN DAM NEAR HUNTINGDON...... 167
JUNIATA RIVER BASIN, LAKE IN................ 166

KARTHAUS, MOSQUITO CREEK NEAR............... 292
   WEST BRANCH SUSQUEHANNA RIVER AT.......... 70
KEATING, COOKS RUN NEAR..................... 296
   CROWLEY HOLLOW NEAR....................... 296
KELLYTOWN, POTTS RUN AT..................... 286
KERSEY RUN AT WEEDVILLE..................... 294
KETTLE CREEK, AT CROSS FORK................. 77
   NEAR WESTPORT............................. 78
KETTLE CREEK LAKE........................... 152
KITTANING CREEK NEAR ALTOONA................ 302
KRATZER RUN AT BRIDGEPORT................... 282
KYLERTOWN, ALDER RUN NEAR................... 276

LACKAWANNA RIVER, AT ARCHBALD............... 47
   AT OLD FORGE.............................. 48
   NEAR FOREST CITY.......................... 46
LACKAWANNA RIVER BASIN, RESERVOIR IN........ 49
LAKE MARBURG................................ 230
LAKES AND RESERVOIRS:
   COWANESQUE LAKE 40
   CURWENSVILLE LAKE......................... 152
   DEHART RESERVOIR.......................... 184
   FIRST FORK SINNEMAHONING CREEK RESERVOIR.. 152
   FOSTER JOSEPH SAYERS LAKE................. 152
   GLENDALE LAKE............................. 152
   HAMMOND LAKE.............................. 40
   INDIAN ROCK RESERVOIR..................... 230
   KETTLE CREEK LAKE......................... 152
   LAKE MARBURG.............................. 230
   RAYSTOWN LAKE............................. 166
   STILLWATER LAKE........................... 49
   TIOGA LAKE................................ 40
LANCASTER, CONESTOGA RIVER AT............... 232
LARRYS CREEK, NEAR SALLDASBURG.............. 300
LAWRENCEVILLE, COWANESQUE RIVER NEAR........ 37

LESLE RUN NEAR CARRROLLTOWN.................. 278
LETORT SPRING RUN NEAR CARLISLE.............. 186
LEWISBURG, WEST BRANCH SUSQUEHANNA RIVER AT. 144
LICK RUN NEAR EAST WATERFORD................. 274
LIGHT STREET, APPLEMANS RUN BELOW............ 276
  FISHING CREEK ABOVE........................ 276
  FISHING CREEK BELOW........................ 276
  FISHING CREEK TRIBUTARY NEAR............... 276
LITTLE ANDERSON CREEK NEAR ROCKTON........... 282
LITTLE BRUBAKER RUN NEAR HASTINGS............ 280
LITTLE CLEARFIELD CREEK NEAR GLEN RICHEY.... 286
LITTLE FISHING CREEK NEAR BLOOMSBURG......... 276
LITTLE JUNIATA RIVER, AT SPRUCE CREEK....... 160
  AT TIPTON.................................. 274
LITTLE LOST CREEK AT OAKLAND MILLS........... 172
LITTLE MUDDY RUN AT SMOKE RUN................ 284
LITTLE PINE CREEK NEAR ENGLISH CENTER....... 300
LITTLE WILLS CREEK AT BARD................... 275
LOCK HAVEN, TANGASCOOTACK CREEK NEAR......... 298
LOCK HAVEN, WEST BRANCH SUSQUEHANNA
  RIVER AT................................... 273
LOCKWOOD, DRIFTWOOD BRANCH SINNEMAHONING
    CREEK NEAR............................... 296
LOGANTON, BULL RUN NEAR...................... 274
LONG RUN AT MOUNT HOPE....................... 286
LOPEZ, LOYALSOCK CREEK AT.................... 300
LOST RUN AT MADERA........................... 286
LOYALSOCK CREEK, AT LOPEZ.................... 300
  AT LOYALSOCKVILLE.......................... 140
LOYALSOCKVILLE, LOYALSOCK CREEK AT........... 140
LOYSVILLE, BIXLER RUN NEAR................... 182
LUZERNE, TOBY CREEK AT....................... 51
LYCOMING CREEK NEAR TROUT RUN................ 130

MADERA, CLEARFIELD CREEK NEAR................ 284
  JAPLING RUN AT............................. 288
  LOST RUN AT................................ 286
  MUDDY RUN AT............................... 286
  PINE RUN NEAR.............................. 286
  SHOFF MINE AT.............................. 284
MAHAFFEY, CHEST CREEK AT..................... 282
MAHANOY CREEK, NEAR HERNDON.................. 277
MAINESBURG, COREY CREEK NEAR................. 29
MANCHESTER, WEST CONEWAGO CREEK NEAR......... 226
MANSFIELD, TIOGA RIVER NEAR.................. 22
MAPLETON DEPOT, JUNIATA RIVER AT............. 170
MARIETTA, SUSQUEHANNA RIVER AT............... 231
MARSH CREEK AT BLANCHARD 100
MARTIC FORGE, PEQUEA CREEK AT................ 258
MCGEES MILLS, SOUTH BRANCH BEAR RUN AT...... 280
MEAN CONCENTRATION, DEFINITION OF............ 9
MEAN DISCHARGE, DEFINITION................... 7
MEDIX RUN, BENNETT BRANCH SINNEMAHONING
    CREEK AT................................. 294
  MEDIX RUN NEAR............................. 294
MEDIX RUN NEAR MEDIX RUN..................... 294
MESHOPPEN, SUSQUEHANNA RIVER AT.............. 44
METHYLENE BLUE ACTIVE SUBSTANCE, DEFINITION
    OF....................................... 8
MICROGRAMS PER GRAM, DEFINITION OF........... 8
MICROGRAMS PER LITER, DEFINITION OF.......... 8
MIDDLEBURY CENTER, CROOKED CREEK AT.......... 273
MILESBURG, BALD EAGLE CREEK BELOW SPRING
  CREEK AT................................... 94
  BALD EAGLE CREEK NEAR...................... 95
  SPRING CREEK AT............................ 93
MILLIGRAMS PER LITER,
    DEFINITION OF............................ 8
MILLSTONE RUN NEAR SHAWVILLE................. 288
MINERAL SPRINGS, MORGAN RUN NEAR............. 286
  ROARING RUN AT............................. 288
MINERS RUN NEAR RALSTON...................... 300
MITCHELL MINE DISCHARGE, NO. 1 AT ANTRIM..... 112
  NO. 2 AT ANTRIM............................ 113
MIX RUN NEAR DRIFTWOOD....................... 294
MONROETON, TOWANDA CREEK NEAR................ 43
MONUMENT, BEECH CREEK AT..................... 103
MOOSE CREEK AT CLEARFIELD.................... 282
MOOSE RUN AT PENFIELD........................ 292
MORGAN RUN NEAR MINERAL SPRINGS.............. 286
MORRIS, BABB CREEK AT........................ 106
  WILSON CREEK AT............................ 122
  UNNAMED TRIBUTARY TO PAINT RUN NEAR........ 123
MORRIS RUN, MORRIS RUN NEAR.................. 278
  TIOGA RIVER ABOVE.......................... 278
MORRIS RUN NEAR MORRIS RUN................... 278
MOSHANNON, BLACK MOSHANNON CREEK AT.......... 292
  MOSHANNON CREEK NEAR....................... 292
MOSHANNON CREEK, AT OSCEOLA MILLS............ 68
  NEAR MOSHANNON............................. 292
  UNNAMED TRIBUTARY TO AT MUNSON............. 290
MOSQUITO CREEK NEAR KARTHAUS................. 292
MOUNT HOPE, LONG RUN AT...................... 286
MOUNTAIN RUN NEAR PENFIELD................... 292
MOWRY RUN AT ROLLING STONE................... 288
MT NEBO, PEQUEA CREEK TRIBUTARY NEAR......... 265
MUDDY RUN AT MADERA.......................... 286
MUNCY CREEK, NEAR SONESTOWN.................. 142
MUNSON, UNNAMED TRIBUTARY TO MOSHANNON
    CREEK AT................................. 290

NATIONAL GEODETIC VERTICAL DATUM OF 1929
    (NGVD), DEFINITION OF.................... 8
NATURAL SUBSTRATE, DEFINITION OF............. 10
NEEDMORE, TONOLOWAY CREEK NEAR............... 271
NEW ALBANY, SOUTH BRANCH TOWANDA CREEK AT... 273
NEWBURG RUN AT NEWBURG....................... 274
NEWBURG, WILSON RUN AT....................... 280
NEWPORT, JUNIATA RIVER AT.................... 173
NORTH BRANCH SUGAR CREEK TRIBUTARY NEAR
    COLUMBIA CROSS ROADS..................... 273
NORTH FORK BEECH CREEK AT CLARENCE........... 298
NORTH WITMER RUN AT IRVONA................... 284
NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS
    SITES.................................... 12

OAKLAND MILLS, LITTLE LOST CREEK AT.......... 172
OLD FORGE, LACKAWANNA RIVER AT............... 48
ONEMILE RUN NEAR PHILLIPSBURG................ 290
ONO, REEDS CREEK NEAR........................ 275
ORGANIC MASS, DEFINITION OF.................. 6
ORGANISM, DEFINITION OF...................... 8
ORGANISM COUNT/AREA, DEFINITION OF........... 8
ORGANISM COUNT/VOLUME, DEFINITION OF......... 8
OSCEOLA MILLS, MOSHANNON CREEK AT............ 68
OTTER RUN AT CARSONTOWN...................... 300

PADDY RUN NEAR RENOVO........................ 298
PAINT RUN, UNNAMED TRIBUTARY
  NEAR MORRIS................................ 126
PARKER RUN AT GARDEAU........................ 296
PARTIAL-RECORD STATION, DEFINITION OF........ 8
PARTICLE-SIZE CLASSIFICATION,
    DEFINITION OF............................ 8
PARTICLE-SIZE DEFINITION OF.................. 8
PATTON, CHEST CREEK AT....................... 280
PAXTON CREEK, NEAR PENBROOK.................. 274
PENBROOK, PAXTON CREEK NEAR.................. 274
PENFIELD, ANDERSON CREEK NEAR................ 282
  MOOSE RUN AT............................... 292
  MOUNTAIN RUN NEAR.......................... 292
  SOUTH BRANCH BENNETT BRANCH SINNEMAHONING
    CREEK NEAR............................... 292
  WILSON RUN AT.............................. 273
  WILSON RUN NEAR............................ 292
PENNS CREEK AT PENNS CREEK................... 156
PENNS CREEK, PENNS CREEK AT.................. 156
PERCENT COMPOSITION, DEFINITION OF........... 8
PESTICIDES, DEFINITION OF.................... 8
PEQUEA CREEK AT MARTIC FORGE................. 258
  REVISIONS TO............................... 306
  TRIBUTARY NEAR MT. NEBO.................... 265
  TRIBUTARY SITE NO. 1 AT STRASBURG.......... 233
  TRIBUTARY SITE NO. 2 AT STRASBURG.......... 238
PHILLIPSBURG, COLD STREAM AT................. 290
  ONEMILE RUN NEAR........................... 290
PHYTOPLANKTON, DEFINITION OF................. 9
PICOCURIE, DEFINITION OF..................... 8
PINE CREEK, AT CEDAR RUN..................... 126
  BELOW LITTLE PINE CREEK NEAR WATERVILLE... 129
PINE GLEN, STERLING RUN NEAR................. 292
PINE RUN NEAR IRVONA......................... 284
  NEAR MADERA................................ 286
PLANKTON, DEFINITION OF...................... 8
POLYCHLORINATED BIPHENYLS, DEFINITION OF.... 9
POTTERSDALE, SALTLICK RUN NEAR............... 292
POTTS RUN AT KELLYTOWN....................... 286
POWELL, SCHRADER CREEK AT.................... 278
  TOWANDA CREEK AT........................... 278
POWELL RUN AT VAN ORMER...................... 284
PUBLICATIONS ON TECHNIQUES OF WATER-
    RESOURCES INVESTIGATIONS................. 17

QUARRYVILLE, BOWERY RUN NEAR 269
QUITTAPAHILLA CREEK NEAR BELLEGROVE 224

RALSTON, FROZEN RUN NEAR 300
  MINERS RUN NEAR 300
  RED RUN AT 300
RAVINE, SWATARA CREEK AT 277
RAYSTOWN BRANCH JUNIATA RIVER, AT SAXTON 165
  BELOW RAYSTOWN DAM NEAR HUNTINGDON 167
RAYSTOWN LAKE 166
REAMSTOWN, STONY RUN AT 275
RECOVERABLE FROM BOTTOM MATERIAL, DEFINITION OF 9
RED RUN AT RALSTON 300
REEDS CREEK NEAR ONO 275
RENOVO, PADDY RUN NEAR 298
  WEST BRANCH SUSQUEHANNA RIVER AT 79
  YOUNG WOMANS CREEK NEAR 86
RESERVOIRS,
    SEE LAKES AND RESERVOIRS
RIDDLESBURG, SIXMILE RUN NEAR 302
RINGDALE, BIRCH CREEK NEAR 300
RINGTOWN, TREXLER RUN NEAR 55
ROARING RUN AT MINERAL SPRINGS 288
ROCKTON, LITTLE ANDERSON CREEK NEAR 282
ROLLING STONE, MOWRY RUN AT 288
  ROLLING STONE RUN NEAR 288
ROLLING STONE RUN NEAR ROLLING STONE 288
RUNOFF IN INCHES, DEFINITION OF 9

SALLDASBURG, LARRYS CREEK NEAR 300
SALTLICK RUN NEAR POTTERSDALE 292
SAND SPRING RUN NEAR WHITE DEER 143
SANDY RUN AT HOPEWELL 302
  AT VAN ORMER 284
  NEAR BELLWOOD 274
  NEAR SNOW SHOE 298
SAXTON, RAYSTOWN BRANCH JUNIATA RIVER AT 165
  SHOUP RUN NEAR 302
SCHELL RUN AT TYRONE 274
SCHRADER CREEK AT POWELL 278
SEDIMENT, DEFINITION OF 9
SHAMOKIN CREEK NEAR SHAMOKIN 155
SHAMOKIN, SHAMOKIN CREEK NEAR 155
SHAW RUN NEAR BLANDBURG 302
SHAWVILLE, MILLSTONE RUN NEAR 288
  TROUT RUN AT 288
SHERMAN CREEK AT SHERMANS DALE 183
SHERMANS DALE, SHERMAN CREEK AT 183
SHOFF MINE AT MADERA 284
SHOUP RUN NEAR SAXTON 302
SILVARA, TUSCARORA CREEK NEAR 273
SINNEMAHONING, SINNEMAHONING CREEK AT 74
  FIRST FORK SINNEMAHONING CREEK NEAR 76
SINNEMAHONING CREEK, AT SINNEMAHONING 74
  BENNETT BRANCH, AT DRIFTWOOD 276,294
    AT MEDIX RUN 294
      SOUTH BRANCH, NEAR PENFIELD 292
  DRIFTWOOD BRANCH:
    AT STERLING RUN 73
    NEAR LOCKWOOD 296
  FIRST FORK, NEAR SINNEMAHONING 76
SIXMILE RUN NEAR RIDDLESBURG 302
SLATE LICK RUN NEAR FRUGALITY 284
SMOKE RUN, LITTLE MUDDY RUN AT 284
SNOW SHOE, SANDY RUN NEAR 298
  SOUTH FORK BEECH CREEK NEAR 101
  WOLF RUN NEAR 298
SOLOMON CREEK AT WILKES BARRE 52
SOLUTE, DEFINITION OF 9
SONESTOWN, MUNCY CREEK NEAR 142
SOUTH BRANCH BEAR RUN AT MCGEES MILLS 280
SOUTH BRANCH BENNETT BRANCH SINNEMAHONING CREEK NEAR PENFIELD 292
SOUTH BRANCH CODORUS CREEK NEAR YORK 228
SOUTH BRANCH TOWANDA CREEK AT NEW ALBANY 273
SOUTH FORK BEECH CREEK NEAR SNOW SHOE 101
SPANGLER, FOX RUN AT 280
  WEST BRANCH SUSQUEHANNA RIVER NEAR 280
SPECIAL NETWORKS AND PROGRAMS 12
SPECIFIC CONDUCTANCE, DEFINITION OF 9
SPRING CREEK, AT MILESBURG 93
  NEAR AXEMANN 92
SPRING GROVE, CODORUS CREEK AT 227
SPRING RUN NEAR WEEDVILLE 294
SPRUCE CREEK, LITTLE JUNIATA RIVER AT 160
STAGE-DISCHARGE RELATION, DEFINITION OF 10
STERLING RUN, DRIFTWOOD BRANCH SINNEMAHONING CREEK AT 73
  STERLING RUN NEAR 296
  TANNERY HOLLOW RUN NEAR 296
STERLING RUN NEAR PINE GLEN 292
  NEAR STERLING RUN 296
STILLWATER LAKE 49
STONY FORK NEAR MOUTH NEAR BLACKWELL 124
STONY RUN AT REAMSTOWN 275
STRASBURG, SITE NO. 1 ON PEQUEA CREEK TRIBUTARY AT 233
  SITE NO. 2 ON PEQUEA CREEK TRIBUTARY AT 238
STREAMFLOW, DEFINITION OF 10
SUBSTRATE, DEFINITION OF 10
SUGAR CREEK TRIBUTARY, NORTH BRANCH NEAR COLUMBIA CROSS ROADS 273
SUGAR RUN NEAR ALTOONA 302
SULPHUR RUN NEAR WINBURNE 290
SUMMARY OF HYDROLOGIC CONDITIONS 2
SUNBURY, SUSQUEHANNA RIVER AT 154
SURFACE AREA, DEFINITION OF 10
SURFICIAL BED MATERIAL, DEFINITION OF 10
SURVEYOR RUN AT SURVEYOR 288
SURVEYOR, SURVEYOR RUN AT 288
SUSPENDED, DEFINITION OF 10
SUSPENDED, RECOVERABLE, DEFINITION OF 10
SUSPENDED, TOTAL, DEFINITION OF 10
SUSPENDED SEDIMENT, DEFINITION OF 9
SUSPENDED-SEDIMENT CONCENTRATION, DEFINITION OF 9
SUSPENDED-SEDIMENT DISCHARGE, DEFINITION OF 9
SUSPENDED-SEDIMENT LOAD, DEFINITION OF 9
SUSQUEHANNA RIVER, AT DANVILLE 56
  AT HARRISBURG 188
  AT MARIETTA 231
  AT MESHOPPEN 44
  AT SUNBURY 154
  AT TOWANDA 42
  AT WILKES-BARRE 50
  WEST BRANCH, AT BOWER 62
    AT CHERRY TREE 260
    AT CURWENSVILLE 64
    AT HYDE 65
    AT KARTHAUS 70
    AT LEWISBURG 144
    AT LOCK HAVEN 273
    AT RENOVO 79
    AT WILLIAMSPORT 132
    NEAR SPANGLER 280
SWATARA CREEK, AT HARPER TAVERN 222
  AT RAVINE 277
  NEAR HERSHEY 225

TANGASCOOTACK CREEK NEAR LOCK HAVEN 298
TANNERY HOLLOW RUN NEAR STERLING RUN 296
TATMAN RUN NEAR ENTRIKEN 304
TAXONOMY, DEFINITION OF 10
THREE SPRINGS, AUGHWICK CREEK NEAR 171
  THREE SPRINGS CREEK NEAR 277
THREE SPRINGS CREEK NEAR THREE SPRINGS 277
TIME-WEIGHTED AVERAGE, DEFINITION OF 10
TIOGA, TIOGA RIVER AT 30
TIOGA JUNCTION, TIOGA RIVER AT 31
TIOGA LAKE 40
TIOGA RIVER, ABOVE MORRIS RUN 278
  AT COUNTY BRIDGE 278
  AT TIOGA 30
  AT TIOGA JUNCTION 31
  NEAR MANSFIELD 22
TIPTON, LITTLE JUNIATA RIVER AT 274
TOBY CREEK AT LUZERNE 51

TONOLOWAY CREEK NEAR NEEDMORE.............. 271
TONS PER ACRE-FOOT, DEFINITION OF.......... 11
TONS PER DAY, DEFINITION OF................ 11
TOTAL, DEFINITION OF....................... 11
TOTAL, RECOVERABLE, DEFINITION OF.......... 11
TOTAL COLIFORM BACTERIA, DEFINITION OF..... 6
TOTAL IN BOTTOM MATERIAL, DEFINITION OF.... 11
TOTAL LOAD, DEFINITION OF.................. 11
TOTAL ORGANISM COUNT, DEFINITION OF........ 8
TOTAL SEDIMENT DISCHARGE, DEFINITION OF.... 9
TOWANDA CREEK, AT POWELL................... 278
  NEAR MONROETON........................... 43
  SOUTH BRANCH AT NEW ALBANY............... 273
TOWANDA, SUSQUEHANNA RIVER AT.............. 42
TREXLER RUN NEAR RINGTOWN.................. 55
TROUT RUN, AT BENZETTE..................... 294
  AT EDENDALE.............................. 290
  AT SHAWVILLE............................. 288
  LYCOMING CREEK NEAR...................... 130
TRUMAN, BIG RUN AT 294,296
TUNKHANNOCK, TUNKHANNOCK CREEK NEAR........ 45
TUNKHANNOCK CREEK, NEAR TUNKHANNOCK........ 45
TUSCARORA CREEK, NEAR SILVARA.............. 273
TWOMILE RUN NEAR WESTPORT.................. 298
TYRONE, BALD EAGLE CREEK AT................ 159
  SCHELL RUN AT............................ 274

UNNAMED TRIBUTARY AT PAINT RUN
    NEAR MORRIS............................ 123

VAN ORMER, POWELL RUN AT................... 284
  SANDY RUN AT............................. 284

WRD, DEFINITION OF......................... 11
WSP, DEFINITION OF......................... 11
WALDY RUN NEAR EMPORIUM.................... 72
WAPWALLOPEN, WAPWALLOPEN CREEK NEAR........ 53
WAPWALLOPEN CREEK NEAR WAPWALLOPEN......... 53
WASHINGTONVILLE, CHILLISQUAQUE CREEK NEAR... 151
WATERVILLE, PINE CREEK BELOW LITTLE PINE
    CREEK NEAR............................. 129
WEEDVILLE, KERSEY RUN AT................... 294
  SPRING RUN NEAR.......................... 294
WEIGHTED AVERAGE, DEFINITION OF............ 11
WEST BRANCH SUSQUEHANNA RIVER, AT BOWER..... 62
  AT CHERRY TREE........................... 280
  AT CURWENSVILLE.......................... 64
  AT HYDE.................................. 65
  AT KARTHAUS.............................. 70
  AT LEWISBURG............................. 144
  AT LOCK HAVEN............................ 273
  AT RENOVO................................ 79
  AT WILLIAMSPORT.......................... 132
  NEAR SPANGLER............................ 280
WEST BRANCH SUSQUEHANNA RIVER BASIN, LAKES
    AND RESERVOIR IN....................... 152
WEST CONEWAGO CREEK NEAR MANCHESTER......... 226
WEST CREEK AT HOWARD SIDING................ 296
WEST WILLOW, GOODS RUN TRIBUTARY AT........ 254
WESTPORT, KETTLE CREEK NEAR................ 78
WESTPORT, TWOMILE RUN NEAR................. 298
WET MASS, DEFINITION OF.................... 6
WHITE DEER, SAND SPRING RUN NEAR........... 143
WHITE DEER HOLE CREEK, NEAR ELIMSPORT...... 274
WILKES-BARRE, SOLOMON CREEK AT............. 52
  SUSQUEHANNA RIVER AT 50
WILLIAMSBURG, FRANKSTOWN BRANCH JUNIATA
    RIVER AT............................... 158
WILLIAMSPORT, WEST BRANCH SUSQUEHANNA RIVER
    AT..................................... 132
WILLOW STREET, GOODS RUN TRIBUTARY AT...... 245
WILLS CREEK AT GLENCOE..................... 304
  NEAR HYNDMAN............................. 304
WILSON CREEK, ABOVE SAND RUN NEAR ANTRIM.... 107
  AT MORRIS................................ 122
WILSON RUN, AT NEWBURG..................... 280
  AT PENFIELD.............................. 273
  NEAR PENFIELD............................ 292
WINBURNE, BLACK BEAR RUN NEAR.............. 290
  SULPHUR RUN NEAR......................... 290
WOLF RUN NEAR SNOW SHOE.................... 298

YELLOW BREECHES CREEK, NEAR CAMP HILL........ 221
YORK, CODORUS CREEK NEAR................... 229
  SOUTH BRANCH CODORUS CREEK NEAR.......... 228
YOUNG WOMANS CREEK NEAR RENOVO............. 86

ZOOPLANKTON, DEFINITION OF................. 9

☆U.S. GOVERNMENT PRINTING OFFICE: 1982 508 795 0

October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\mathrm{x}10^{1}$	millimeters (mm)
	$2.54\mathrm{x}10^{-2}$	meters (m)
feet (ft)	$3.048\mathrm{x}10^{-1}$	meters (m)
miles (mi)	$1.609\mathrm{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\mathrm{x}10^{3}$	square meters (m^2)
	$4.047\mathrm{x}10^{-1}$	square hectometers (hm^2)
	$4.047\mathrm{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\mathrm{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\mathrm{x}10^{0}$	liters (L)
	$3.785\mathrm{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\mathrm{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\mathrm{x}10^{3}$	cubic meters (m^3)
	$3.785\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\mathrm{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\mathrm{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\mathrm{x}10^{3}$	cubic meters (m^3)
	$2.447\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\mathrm{x}10^{3}$	cubic meters (m^3)
	$1.233\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\mathrm{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\mathrm{x}10^{1}$	liters per second (L/s)
	$2.832\mathrm{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\mathrm{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\mathrm{x}10^{-2}$	liters per second (L/s)
	$6.309\mathrm{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\mathrm{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\mathrm{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\mathrm{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\mathrm{x}10^{-1}$	megagrams (Mg) or metric tons